ICMA
International Capital Market Association

QUARTERLY REPORT

ASSESSMENT OF MARKET PRACTICE AND REGULATORY POLICY

INSIDE:

INTERNATIONAL CAPITAL MARKET FRAGMENTATION

PRESSURE ON REPO MARKETS

THE COMMON OWNERSHIP DEBATE

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ICMA

International Capital Market Association

ICMA promotes resilient and well-functioning international capital markets, which are necessary for economic growth. ICMA's market conventions and standards have been the pillars of the international debt market for nearly fifty years.

Membership continues to grow and we now have more than 500 member firms in some 60 countries. Around 80% of our members are based in Europe.

Among the members are global investment banks, commercial and regional banks, brokers, private banks, institutional asset managers, pension funds, central banks, sovereign wealth funds and other institutions with a significant interest in the international capital market, such as supranational institutions, infrastructure providers, rating agencies and leading law firms.

ICMA members work with ICMA through its market practice and regulatory policy committees and councils to provide expert views on the issues affecting the international capital markets. The committees act as a forum for discussion and for reaching consensus on topics of common interest, developing recommendations for best market practice and the efficient operation of the markets and considering policy responses to regulators.

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Financing markets of the future

By Spencer Lake

I thought it appropriate, after six years on the Board of ICMA, with the majority either as Deputy Chairman or Chairman, to reflect on our accomplishments as an organisation, and to put that into the context of the global markets and our industry. How have we changed? And what changes should we be looking at now to help guide ICMA into the future? In my 30 years in banking, the last few years have been easily the most complicated operating environment for our membership – sell side, buy side, issuers and market infrastructure players.

There have been three macro forces to deal with – structural change in regulation; technology/automation; and geopolitics. None of these is unique in and of themselves, and we now understand each one of them better. But it is the confluence of all three, and at a time when we are experiencing generational change, that is complicated.

Over the past six years, under the leadership of our Chief Executive, Martin Scheck, much has been accomplished at ICMA. In addition to our core work on primary markets, secondary markets, repo and collateral and the buy side, we provide the Secretariat to the Green Bond Principles which to date has become the guiding force, in a voluntary way, for sustainable bond financing – the fastest growing area in financing globally.

We have been at the forefront of the internationalisation and convergence of the Chinese bond markets, signing an MOU with the National Association of Financial Market Institutional Investors (NAFMII) across multiple areas to help open up China's corporate bond market. China will continue to globalise most facets of its economy, and certainly the financial markets and, as the second largest economy and third largest financial market in the world, we must understand and accommodate this.

In governance and representation, we have grown the ICMA Board from 16 to 22 members and changed its composition. Amongst our Board members there are now four women, four investors, two issuers, a representative of a Canadian bank and our first Chinese Bank to complement a predominantly sell-side Board and effect our cross-industry strategy. We have also increased significantly the seniority of the Board.

ICMA's membership has grown from around 400 to some 510 members – a record over the last decade, and the level of engagement with our members has never been higher. We started the ICMA Women's Network to address the chronic gender diversity issue that plagues the industry, and formed an ICMA Future Leaders Group to engage young professionals at the early stages of their careers – both are well received by our members. And cooperation amongst trade bodies is essential – we have forged a collaborative agenda to work with sister organisations globally.

Importantly, we continue to look forward. With Brexit, elections in Europe and the new Administration in America, we are increasingly concerned with fragmentation of capital markets. It is unnatural to have markets around the world not working together. Capital markets have proven time and again to be effective when they can serve the local population but also connect across borders.

We are embracing the automation of the industry as this is clearly part of the solution to ensure liquidity in a capital-constrained environment. And we want to ensure that technology assists in enabling efficient markets rather than detracting from the great progress of the past 50 years. If we can contribute to a scenario where we can reduce the frictional boundaries that affect global capital flows and stand firm on high quality governance and conduct, then we will have been successful.

Finally, it is people who make our industry work. We should collectively do our utmost to address the "people agenda" and ensure we can still attract the best and brightest to be the architects and guardians of the "financing markets of the future".

I encourage the Board and management of ICMA to continue this forward-looking approach, to continue to collaborate with our sister organisations, to promote well-functioning, robust and resilient capital markets, and to support youth and gender diversity, green finance, infrastructure and China as it opens up. It has been a privilege to serve as Chairman of ICMA and I wish it every success for the future.

Spencer Lake, *Chairman, ICMA*

Implementation – full steam ahead

By Martin Scheck

So far in 2017 the backdrop to the capital markets has been dominated by the triggering of Article 50 as part of the Brexit process on 29 March, the first signs of how the Trump Administration will operate during the next four years, the forthcoming elections in France and Germany, increasing inflation in Europe and the US (leading to a rise in rates by the Fed), as well as continuing QE in Europe, albeit at a slower pace. Curves are already higher and steeper than they were at the beginning of the year and capital market practitioners have had to navigate around the volatility caused by the abundant news flow – this is likely to remain the case.

Market participants are also facing the challenge that 2017 is the "heaviest" year for the implementation of regulation that they have ever encountered. MiFID II is of course the prime but by no means the only example. Even now, precise details of what needs to be done are not always clear and only emerging piecemeal. Given the necessary changes in business processes and the IT build required to effect these, the hurdles for successful and timely implementation are very high. This implementation phase is an area where ICMA can and does add value. We actively analyse the regulation, and the practicalities of its implementation, we look at the impact on market functioning, speak to regulators and bring market participants together in our committees and working groups to exchange information wherever possible as we strive to bring clarity to the situation. This will continue to be a major focus for us in 2017 – and beyond.

We believe that capital market integration is fundamental to the ability of the markets to finance economic growth. We are concerned that, for the time being, the move towards globalisation has stalled and we are seeing the re-emergence of fragmentation and protectionism, which will impair market functioning. We develop this theme further in this edition of the Quarterly Report. We remain supportive of the EU Capital Markets Union initiative and responded to the Commission Mid-Term Review consultation, also stressing that the links to markets outside the EU are critical if the initiative is to realise its full potential – not merely the UK after Brexit but also the US and Asian markets.

In this context, we contribute to market development and the internationalisation of markets globally. Through our Hong Kong office, we work closely with our members in Asia, of course in China as the renminbi market becomes more accessible to international issuers and investors, but also in other parts of Asia where our expertise on repo is very much in demand, and we provide education and technical expertise. This is also the case in parts of Africa where our work is largely sponsored by an international development agency.

The green bond market continues to grow and we play a pivotal role as Secretariat for the Green Bond Principles. Each year we run a consultation and refine the Principles further, based on the input received from practitioners and stakeholders. We expect to release the revised set of Principles on 14 June in Paris at the GBP AGM - details are on our website. At the same time, we expect to announce further details on the development of guidance on social bonds.

It is pleasing to see that not only has the proportion of buy-side members in our membership increased, but their engagement within our working groups, committees and councils has also grown. Our approach wherever possible is to incorporate both buy and sell-side members into cross-industry committees – for example, three buy-side members were voted onto the 19-person committee of the European Repo and Collateral Council recently, which improves further its representation and diversity. Where we are looking at issues which are specific to the buy side or through a uniquely buy-side prism, these are dealt with in the ICMA Asset Management and Investors Council (AMIC).

The first quarter of the year has been active in terms of conferences and roundtables organised for our members. Highlights included the Japan Securities Summit in London, a Primary Market Forum in Hong Kong and a highly successful conference for our AMIC in Frankfurt last month.

Looking forward, our flagship AGM and Conference from 3 to 5 May in Luxembourg combines eminent speakers, fascinating panels and excellent networking opportunities at the evening events – please do join us if you can.

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International capital market fragmentation

By Paul Richards

Summary

ICMA has encouraged open and integrated capital markets across national borders for almost 50 years. A great deal of progress has been made towards integration over that period, both by the authorities and by the sell-side and buy-side users of the capital markets themselves. But now there are also countervailing pressures for capital market fragmentation, which are the subject of this paper.

Open and integrated capital markets are under threat from political and economic pressures for protectionism and fragmentation in a number of ways: a reassertion of national sovereignty; a backlash against globalisation; a lack of trust in the financial system; the migration crisis; the questioning of the role of global institutions; and the failure of multilateral trade deals.

It is not yet clear how strong these pressures for capital market fragmentation will be. But there are fragmentation risks. In Europe, they arise from Brexit and doubts about the future composition of the euro area. At global level, they include risks of regulatory divergence (eg between the EU and US) in future; risks in cases in which regulatory equivalence is incomplete at present; ring-fencing; gold-plating; extra-territoriality; and risks of "one-size-fits-all" regulation. There are also risks arising from fragmentation of market liquidity, home bias in investment and an unlevel playing field for competition.

International capital market fragmentation adds costs for users and carries risks for financial stability. While it is not possible reliably to estimate these costs and risks, recent research provides evidence of the potential benefits of capital market integration for real growth and financial stability, depending on the form that integration takes. If capital markets fragment, these benefits will be lost.

What more can the authorities do to prevent fragmentation? At a high level, the challenge for policy makers is political. At a technical level, there is a case for establishing broad global standards of regulatory equivalence under the auspices of the G20; and common standards of good market practice in the cross-border securities markets at global level through IOSCO. At a minimum, the critical point is to preserve the international integration of wholesale capital markets.

Introduction

1 ICMA has encouraged open and integrated capital markets across national borders for almost 50 years. Open and integrated capital markets contribute to economic growth and employment internationally. A great deal of progress has been made towards integration[1] over a long period. This can partly be attributed to the authorities, both at EU level and at global level (through the G20), and partly to the development of the capital markets themselves by the sell-side and buy-side firms using them. The process of capital market integration needs to continue because it is not complete: evidence for this is provided by the Capital Markets Union project at EU level, which is designed to increase the role of capital markets in financing EU economic growth, and the continuing work of the Financial Stability Board (FSB) at global level, which is designed to increase the resilience of the international financial system in response to the international financial crisis of 2007-09. One of the FSB's objectives is to maintain an open and integrated global financial system. Every G20 Leaders' Summit since 2008 has made a commitment to resist all forms of protectionism. But the latest G20 communiqué from Finance Ministers and Central Bank Governors no longer includes this commitment.[2]

1. "The market for a given set of financial instruments and/or services is fully integrated if all potential market participants with the same relevant characteristics: (i) face a single set of rules when they decide to deal with those financial instruments and/or services; (ii) have equal access to the above-mentioned set of financial instruments and/or services; and (iii) are treated equally when they are active in the market.": ECB: Financial Integration in Europe, April 2016.

2. G20 Finance Ministers and Central Bank Governors communiqué: Baden-Baden, 19 March 2017.

2 It is clear that there are now countervailing pressures for capital market fragmentation. They are the subject of this paper. What are the pressures for protectionism and capital market fragmentation, and are they growing? What are the risks arising from fragmentation? What are the potential costs for the real economy? What can the authorities do to prevent fragmentation, and how can the industry help? This is a paper for ICMA members and for international policy makers, both political and official. The focus of the paper is on the international bond markets in the context of the capital markets generally. And geographically, the focus is not only on Europe, but also at global level.

Pressures for protectionism and capital market fragmentation

3 International capital market integration is associated with open markets in goods and services which have developed globally since the Second World War, and in particular since the fall of the Berlin Wall and the integration of China into the global economy.[3] But there is some evidence that open and integrated capital markets are now under threat from political and economic pressures for protectionism and fragmentation in a number of ways:

4 *Reassertion of national sovereignty:* The referendum in the UK in June 2016 on whether to leave the EU (ie Brexit) was won by the leave campaign under the slogan: "taking back control" of national borders, national laws and national money. And the US Presidential election in November 2016 was won by Donald Trump under the slogan: "making America great again", for example by returning manufacturing jobs to the US from abroad, and ensuring that existing jobs do not move abroad. Although UK policy – "global Britain"[4] – and US policy – "buy American and hire American"[5] – are not the same, they can both be interpreted as evidence of a reassertion of national sovereignty and a backlash against globalisation by voters who have not benefited from it.

5 *Backlash against globalisation:* While there has been a very significant increase in real economic growth during the long period of globalisation, real growth has been much slower during the economic recovery from the international financial crisis of 2007-09 than in preceding periods of economic recovery; there has been slower growth in worldwide trade in goods than in overall growth; and there is evidence that growth has not been evenly spread. In the US, the economic benefits of growth have accrued to the top 5% of the population, while the bottom 95% had incomes in 2015 below 2007 levels. The share of wealth held by the richest 1% globally rose from one-third in 2000 to one-half in 2010.[6] In Europe, there is persistently high youth unemployment in parts of the euro area. Although globalisation has reduced inequalities between countries – eg between China, India and the West – it has increased inequality within countries, particularly in the West. To many people, globalisation has become associated with striking inequalities in income and wealth, low wages and insecure jobs. Open markets have so far created more new jobs than the old ones they destroy, but they are not popular when the public is worried about job security (eg as a result of competition from cheap imports, foreign labour and technological innovation).

6 *Lack of trust in the financial system:* Public confidence in the international financial system, which was damaged by the international financial crisis of 2007-09, will take time to repair. Taxpayers' money was used to bail out large parts of the international financial system. And since the financial crisis, the integrity of the financial system has been called into question by misconduct scandals, for which the financial institutions concerned have been fined by regulators. But the costs have been borne largely by shareholders in the companies concerned, while the individuals responsible have often not been punished. Leaving aside financial institutions, concerns have also been expressed about stateless corporations which "do not pay the tax they owe" in the countries in which they do business.

7 *Migration crisis:* Turmoil in the Middle East has led to mass migration in Europe on a scale not previously experienced since the aftermath of the Second World War, and the border between Russia and Eastern and North-Eastern Europe has become increasingly tense. The UK is proposing controls on EU immigration. And migration is not just a European issue. For example, President Trump has proposed a new wall along the US/Mexican border.

8 *Questioning of the role of global institutions:* The future role of the global institutions created after the Second World War – NATO, the UN, the IMF, the World Bank and (more recently) the WTO – has been called into question on a number of occasions in the past, but most recently by the new US President.[7] In the case of NATO, the main concern

3. President Xi: "Globalisation has powered global growth and facilitated movement of goods and capital, advance in science, technology and civilisation, and interactions among people.": Davos, January 2017.

4. UK Prime Minister: The Government's Negotiating Objectives for Exiting the EU: Lancaster House, 17 January 2017.

5. President Trump: Inaugural Address, 20 January 2017.

6. Mark Carney, Governor of the Bank of England: The Spectre of Monetarism: Roscoe Lecture, 5 December 2016.

in the US appears to be that Western Europe should pay more for its own security. But doubts have also been raised about the global liberalisation agenda which the IMF has advocated since it was founded; use of the WTO to resolve trade disputes has been questioned; and several large countries have been criticised as alleged "currency manipulators" (ie keeping their exchange rates artificially low in order to give them an advantage in external trade).

9 *Failure of multilateral trade deals:* A number of high-profile multilateral trade deals have recently failed to be agreed: in particular, the Transatlantic Trade and Investment Partnership (TTIP), involving the US and the EU, has not been agreed, while the US has decided not to join the Trans-Pacific Partnership (TPP) of 12 Asia-Pacific economies. The trade agreement between the EU and Canada (CETA) took seven years to negotiate and ratify, and was held up at the last moment by the Wallonian Parliament in Belgium. A priority for the new US Administration is to renegotiate the North America Free Trade Agreement (NAFTA) with Canada and Mexico.

Risks of capital market fragmentation

10 It is not clear at this stage how strong these pressures for protectionism and fragmentation will be. But they do represent potential threats to the global economy. While the potential impact on the global economy is much broader than their potential impact on international capital markets, it *is* possible to identify some of the risks of capital market fragmentation, both at European and at global level.

Fragmentation risks at European level

11 In Europe, the main risks of capital market fragmentation currently relate to Brexit and to the future composition of the euro area:

12 *Brexit:* The UK is planning to leave the EU Single Market when it leaves the EU.[8] Instead, the UK Government is planning to negotiate with the EU27 a bilateral free trade agreement which provides access to the EU Single Market for the UK as a third country (and vice versa). One approach would be to establish and maintain equivalence in capital market regulation between the UK and the EU27, with an independent third party for resolving disputes. It is not yet clear whether this would be practicable. An alternative would be for firms involved across EU capital markets to be separately authorised, capitalised and staffed in both the UK and the EU27, if they are not authorised already.[9] While the UK and the EU27 should have a mutual interest in minimising market uncertainty and disruption, the risks arising from Brexit would be greatest if the negotiations between the UK and the EU27 fail to reach agreement, and the UK has to fall back on trading with the EU27 under WTO and GATS rules.[10] That could lead to regulatory divergence between the UK and the EU27, raising costs for firms operating in two separate markets rather than the Single Market at present; it could lead to a regulatory "race to the bottom", raising financial stability concerns;[11] and it could also lead to capital market fragmentation by geographical location: eg if CCPs with significant euro-denominated business are required to be located in the euro area.

13 *Risk of fragmentation of the euro area:* The other main risk of capital market fragmentation in Europe relates to the future composition of the euro area. This was last an issue when Greece was threatened with expulsion from the euro area in 2015. It is not clear whether it will again become an issue in 2017. That may depend on the outcome of elections due in 2017 in France and Germany, and by February 2018 in Italy. Given the persistence of substantial imbalances in the euro area and the persistently high level of non-performing bank loans in several euro-area countries, there is a significant risk of reigniting the bank-to-sovereign debt loop which developed during the sovereign debt crisis in the euro area in 2010-12. Without greater financial integration, more labour mobility and substantial fiscal transfers, the euro area remains exposed to country-specific shocks. Any market concern would be reflected in a widening of government yield differentials and a loss of deposits from the banking system in the weaker countries. Financial institutions would attempt to

7. Congressman McHenry wrote to Janet Yellen, Chair of the Federal Reserve Board, on 31 January 2017: "The Federal Reserve must cease all attempts to negotiate binding standards burdening American business until President Trump has an opportunity to nominate and appoint officials that prioritise America's best interests." Janet Yellen replied on 10 February.

8. The priorities for the UK Government are to control EU immigration and not be subject directly to the European Court of Justice. These priorities are not consistent with being a member of the EU Single Market. See the UK Prime Minister's letter to President Tusk on 29 March 2017 triggering Article 50.

9. See ICMA: The Brexit Negotiations and the International Capital Markets, ICMA Quarterly Report for the First Quarter, 10 January 2017. See also the additional links on the ICMA Brexit webpage.

10. GATS rules provide a "prudential carve-out", under which the parties are generally permitted to retain restrictions on their financial markets for prudential reasons.

11. See also: Andreas Dombret, Member of the Executive Board of the Deutsche Bundesbank: The Possible Impact of Brexit on the Financial Landscape: London, 24 February 2017.

protect themselves against the risk of fragmentation by matching their loans to deposits in each euro-area country (ie "Balkanisation") rather than across the euro area as a whole.

14 *Other capital market fragmentation risks:* The EU Capital Markets Union project and the euro-area Banking Union project are both incomplete.[12] Quantitative easing (QE) by the ECB, accompanied by historically low euro-area interest rates, have helped to ease pressures for financial market fragmentation in the euro area by compressing spreads in bond yields and corporate lending rates between the core of the euro area and the periphery, and encouraging bank lending. But the EIB estimates that cross-border capital flows, which help reinforce international convergence, remain well below their pre-crisis levels; and SMEs continue to face higher lending rates and restricted access to equity capital.[13] The unresolved question is how financial markets will react when QE is withdrawn. In addition, there is market concern about the long-term viability of some pension schemes and insurance products in the euro area if low bond yields persist.[14]

Fragmentation risks at global level

15 While these fragmentation risks arise specifically in Europe, most risks of capital market fragmentation are potentially global in scope, with implications for Europe, the US and the rest of the world. Assessing global risks of fragmentation is not straightforward, not just because it is difficult to know whether they will materialise, but also because different geographic regions are affected in different ways; some risks relate to fragmentation that already exists rather than new risks that may emerge in future; and others relate to economic differences rather than fragmentation as such.

16 *Economic differences:* Many of the economic differences between the EU and the US do not relate to capital market fragmentation as such, but to the different stages in their respective economic recoveries from the international financial crisis of 2007-09. After the crisis, banks were recapitalised in the US much earlier than in the euro area. Bank profitability has recovered much more quickly in the US than in the euro area, where some banks still have a high level of non-performing loans. QE started and ended much earlier in the US, while in the euro area it has recently been prolonged until at least the end of 2017[15], as underlying inflation in the euro area is expected to remain below target. The economic recovery started earlier and has progressed faster in the US than in Europe, and financial markets are now anticipating fiscal expansion (eg through tax cuts and additional spending on infrastructure) as well as deregulation under the new US Administration, resulting in rising short-term US interest rates, and historically high bond yield differentials between US Treasuries and German Bunds.

17 *Risks of regulatory fragmentation:* The authorities have tried to address many of the regulatory issues arising from the international financial crisis already (under the auspices of the G20 through the FSB, BCBS and IOSCO): for example, by:

- preventing the need for taxpayer bail-outs in future by ensuring that the financial markets are safer and that systemically important financial institutions are more robust (as measured by capital, liquidity and leverage); and by ensuring that, if in future they become insolvent, certain of their creditors are bailed in (while protecting their smaller deposit holders) so that they are no longer "too-big-to-fail";
- setting standards of good practice, not just for financial markets but also for the conduct of firms and for the individuals who work in them;
- assessing the implementation and impact of G20 regulatory reforms introduced to date to see whether improvements can be made without rolling back the underlying reforms themselves.

18 In addition, the authorities continue to be involved in maintaining an open and integrated global financial system. In particular, progress has been made towards ensuring regulatory equivalence[16] between the EU and the US. But capital market integration is not complete; and there are risks of fragmentation:

- *Risks of regulatory divergence in future:* The new US Administration is giving a higher priority to deregulation, or at least to removing "over-regulation", than the EU and global organisations such as the FSB, which continue to emphasise that any new regulatory reforms should not roll back the underlying regulatory changes introduced by the G20 in response to the 2007-09 international

12. The Capital Markets Union project is coming up to its mid-term review. In the case of Banking Union, the key issues outstanding include a fiscal backstop for the Single Resolution Fund and the creation of a European Deposit Insurance Scheme.

13. EIB: Investment and Investment Finance in Europe, 2016.

14. See ESRB: Report on the Macroprudential Policy Issues Arising from Low Interest Rates and Structural Changes in the EU Financial System, 2017.

15. though at a lower rate of €60 billion per month from the end of March 2017 instead of €80 billion per month.

16. Regulatory equivalence is sometimes called "substituted compliance" or "mutual recognition".

financial crisis.[17] This may put regulatory equivalence (eg between EMIR in the EU and Dodd-Frank in the US) at risk.

- *Incomplete regulatory equivalence at present:* There are many cases where regulatory equivalence between the EU and the US is not complete: for example, pre-trade transparency requirements will be introduced in the EU under MiFID II in 2018, but there are no equivalent measures in the US; the EU model for paying for investment research under MiFID II will diverge from the US model; provisions for market abuse under the Market Abuse Regulation in the EU are not the same as in the US; new issue processes are similar but not the same; and requirements for reporting financial information differ.
- *Divergent national approaches to regulation:* Some regulations agreed globally are being implemented in different ways in different national jurisdictions: for example, there are diverging national and regional approaches to bank structural reform; the Fundamental Review of the Trading Book under the BCBS is being adopted in the EU in a differentiated way; and there are different structures under TLAC for bail-inable bonds in the EU (compared with a uniform structure in the US).
- *CCP regulation as an example of fragmentation:* CCP regulation in the EU and US is not harmonised. Research by ISDA shows that global derivatives markets have fragmented along geographic lines since the introduction of the US swap execution facility regime in 2013.[18] Although EMIR allows appropriately regulated third-country CCPs to operate in the EU, the US applies a different approach to authorising foreign clearers to operate in the US by requiring a full assessment by the CFTC.[19] More work is needed on CCP recovery and resolution. And while it does appear that reforms have improved clearing efficiency, participation and protection, these benefits are not evenly spread, and there are risks relating to operations, client clearing, concentration and capacity to use the repo market.
- *Ring-fencing:* The European Commission has proposed that non-EU global systemically important banks, or other non-EU banking groups with total EU assets (including branches) of at least €30 billion, with two or more subsidiaries in the EU, should set up intermediate holding companies in the EU with sufficient capital and liquidity in the EU to make sure they can be safely wound down if they fail. This follows the introduction of a US rule, in effect from 2016, requiring all foreign banks with two or more US subsidiaries holding over $50 billion in aggregate assets to set up an intermediate holding company.
- *Gold-plating:* In the EU, national gold-plating of regulation still occurs, and may have unintended consequences: eg there is a risk that national gold-plating of reporting requirements in Italy under Article 129 may reduce the role of Italian underwriters in new international bond issues, and the choices available to investors, if international bank syndicates choose not to distribute new issues to Italy because of the reporting complexity.
- *Extra-territoriality:* Where regulations are not aligned between different jurisdictions, but are intended to be extra-territorial in reach (eg the Financial Transaction Tax and FATCA), they can have an adverse impact on financial markets.
- *Risks of "one-size-fits-all" regulation:* In Asia, while China has taken significant steps to integrate its markets into the global economy, barriers remain to the free flow of capital and labour across its borders. Other Asian markets remain highly fragmented, and the effects of "one-size-fits-all" regulatory reforms vary widely in their application across national jurisdictions.

19 *Risks arising from fragmentation of market liquidity:*[20] It is difficult to pinpoint the direct impact of fragmentation on market liquidity, but there are a number of risks to note:

- One of the unintended consequences of new regulation since the financial crisis has been to increase the costs for banks in making markets. The number of primary market dealers and secondary market makers has declined and secondary market turnover has decreased and become more volatile.
- In the sovereign bond market, there is a close link between bond, CDS and repo market liquidity. Repo dealer balance sheets have shrunk by 30% or more. QE has accentuated the scarcity of collateral by withdrawing securities from the market, except where securities withdrawn from the market are lent back.
- Corporate bond markets are less liquid now than they were previously, particularly for smaller buy-side firms. While overall issuance of corporate bonds has increased, large issuers taking advantage of historically low interest

17. See also the Systemic Risk Council letter to Finance Ministers and Central Bank Governors: "Now is not the moment to relax or retreat": February 2017.

18. ISDA: Cross-Border Fragmentation of Global Derivatives: End-Year 2014 Update, April 2015.

19. PwC: Global Financial Markets Liquidity Study, August 2015.

20. ie the ability to buy or sell a financial asset without significantly affecting its price.

rates have been in the lead. For smaller issuers, there is little secondary market liquidity, which is limiting access to the primary market. Market makers are increasingly "tiering" their clients, as they become more selective about the clients to whom they allocate their limited balance sheet and risk capital, depending on the contribution which their clients make to profitability.

- The risks of fragmentation could become more pronounced, as and when QE in the euro area is withdrawn, spreads widen and interest rates rise. That would particularly be the case if the sell side's role shifts from acting as a principal to acting as an agent, unless buy-side firms become "price makers" rather than "price takers" and provide liquidity to other buy-side firms through all-to-all platforms.

20 *Risks of home bias:* Since the international financial crisis in 2007-09, the risks of an increase in home bias in bank lending and investment, and a corresponding reduction in cross-border lending and investment, have increased. The ECB estimates that internationally active banks have increased domestic lending faster than foreign lending recently. Investment at home – in preference to investment abroad – may have political attractions in the short term, even though there are longer term economic benefits from keeping markets open. In most developed countries, home bias largely arises from investor preference rather than government restrictions. But several emerging markets have erected barriers to global finance and introduced controls against capital inflows and, more recently, outflows.[21]

21 *Risks of an unlevel playing field for competition:* Concerns have also arisen about whether there is a level playing field for competition among capital market firms internationally. For example:

- *Fines:* Since 2008, wholesale market participants have paid $170 billion in misconduct fines.[22] It is sometimes alleged that misconduct fines by the US authorities on European market firms have given US market firms a competitive advantage over their European counterparts. But on the other hand, Ireland's tax treatment of Apple is the subject of a dispute with the European Commission.
- *National champions:* Decisions about company takeovers have never been a matter only for their shareholders; they also involve an assessment by government of their impact on competition, jobs and other issues, such as research and development. But there is an increasing risk of national barriers against foreign takeovers, especially takeovers by government-owned institutions in other countries.

The costs of capital market fragmentation

22 International capital market fragmentation adds costs for users (eg because financial institutions need to hold more capital and more liquid assets if they have to operate under a number of divergent regulatory regimes rather than under a single regime); and it carries risks for financial stability (eg if divergent regulatory regimes lead to regulatory arbitrage between them).[23] But it is not possible reliably to estimate the potential costs of fragmentation for the real economy, as it is not clear to what extent fragmentation risks will materialise. On the other hand, it *is* possible to identify the benefits for the real economy which have arisen from international capital market integration (ie where the benefits would be lost if capital markets were to fragment):

- At a macro level, global real per capita GDP has risen more than 2.5 times since 1960[24] (ie during the period of globalisation).
- At a micro level, international capital market integration has resulted in cheaper funding for governments and corporates, quicker payment transfers across borders, wider use of netting, and benefits for liquidity from the pooling of cash. These benefits could be lost if capital markets were to fragment.
- Capital market integration should also bring benefits for financial stability – particularly in the euro area as a monetary union – by sharing risks internationally through cross-border lending and investment, thereby limiting the impact of country-specific shocks.[25] These benefits could be lost as a result of "Balkanisation" or home bias.

23 Recent research on capital market integration concludes that integration is not in itself a public good; the potential benefits depend on what form it takes:

- First, financial integration needs to be based on long-term rather than short-term capital flows, if it is to be resilient: the withdrawal of short-term capital flows (eg bank deposits) can be disruptive and create financial instability: capital controls had to be imposed in two euro-area countries during the sovereign debt crisis of 2010-12.
- Second, financial integration only delivers lasting positive

21. ECB estimates from Peter Praet, Member of the Executive Board, ECB: The Future of Global Financial Integration, 17 November 2016.

22. Sir Jon Cunliffe, Deputy Governor, Financial Stability, Bank of England: Challenges for Financial Markets, 3 November 2016.

23. See Valdis Dombrovskis, Vice-President of the European Commission: Accelerating the Capital Markets Union: Bloomberg, 10 February 2017.

24. Mark Carney, Governor of the Bank of England: The Spectre of Monetarism: Roscoe Lecture, 5 December 2016.

25. Peter Praet, Member of the Executive Board of the ECB: The Future of Global Financial Integration, 17 November 2016.

effects on growth if countries in receipt of capital flows have sound economic policies and institutions capable of using them productively.

- And third, policy makers may face trade-offs between financial integration and financial stability. Following the crisis, the IMF adopted in 2012 a policy under which measures targeted at managing capital flows can be useful in certain circumstances; and the OECD is reviewing its code of liberalisation of capital movements.[26]

In other words, the objective should be qualitative integration rather than quantitative convergence. (See Box.)

The response to capital market fragmentation

24 The authorities are already involved in the attempt to maintain open and integrated markets (for example in the EU through Capital Markets Union and Banking Union, and at global level through the FSB, BCBS and IOSCO), and this work is expected to continue. But the question is what more the authorities can do to prevent the growing pressures for fragmentation, particularly at global level.

25 *Macroeconomic response:* At a high level, the challenge for policy makers is political: "how to manage and moderate the forces of innovation and integration

Costs and benefits of capital market integration

Several studies have been undertaken by experts for official institutions to estimate the costs and benefits of capital market integration (eg in terms of economic growth and financial stability) and to measure the level of capital market fragmentation, including whether it is increasing or not.

Capital market integration, growth and financial stability

An IMF working paper on *Financial Globalisation: A Reappraisal (2006)* argues that a critical reading of recent empirical literature lends some qualified support for the view that developing countries can benefit from financial globalisation, though with many nuances. The working paper also argues that there is little systematic evidence to support widely cited claims that financial globalisation leads to deeper and more costly crises in growth in developing countries.

Using data from 1974-2007, a BIS paper on *Financial Integration and Economic Growth (2010)* concludes that the effects of financial integration on economic growth differ considerably, depending on the type of external assets and liabilities as well as on the characteristics of countries that experience financial integration: foreign direct investment and equity liabilities have a positive impact on economic growth, while public debt liabilities have a negative impact; and countries with sound institutions and developed financial markets benefit more from financial integration. Financial integration also has an indirect effect on economic growth through its impact on other determinants of growth such as the volume of international trade and the development of domestic financial markets.

A paper published by the Bank of Canada on *Financial Integration, Globalisation, Growth and Systemic Risk (2010)*, using data from 1984-2009, concludes that: (i) financial integration has progressed significantly worldwide, within regions, and particularly in emerging markets; (ii) advances in financial integration and globalisation produce higher growth, lower growth volatility, as well as lower probabilities of systemic risk; (iii) financial integration fosters domestic financial development and the liquidity of equity markets; and (iv) the quality of institutions and corporate governance are important determinants of the levels of financial integration and globalisation. Thus, financial integration and globalisation appear to yield direct as well as indirect benefits in the form of improved growth prospects for countries and lower systemic risk.

Measures of capital market integration and fragmentation

In *The Future of Globalisation (November 2016),* the ECB considers whether, since the financial crisis of 2007-09, there have been increasing signs of a backlash against globalisation. The ECB argues that the evidence for such a trend reversal is mixed. For example, quantity-based measures of global financial integration, such as gross external assets relative to world output, have recently flattened out. But flow measures indicate international capital flows are now down to half their pre-crisis levels relative to world output, especially in developed economies. The ECB also publishes an annual report to monitor *Financial Integration in Europe*, most recently in April 2016.

26. Peter Praet, Member of the Executive Board of the ECB: The Future of Global Financial Integration, 17 November 2016.

which breed aggregate prosperity for the economy as a whole, but which also foster isolation and detachment for substantial proportions of the population."[27]

26 *Global regulatory equivalence:* At a technical level, could the authorities do more to promote regulatory equivalence globally? This would involve mutual recognition of each other's regulations, where the outcomes are equivalent even though a line-by-line comparison of the text is not the same.[28] It would also involve mutual recognition of supervisory arrangements. The current EU arrangements for third country equivalence represent a patchwork of equivalence, endorsement, recognition and third country passporting.[29] There are provisions for equivalence in some EU regulations but not others and, where equivalence does apply, it is not always complete; determining equivalence involves a judgment by the European Commission as well as a technical assessment, and takes time; and the determination of equivalence can be withdrawn at short notice, though this has not happened to date.[30] The EU provisions for equivalence were not designed with the UK's withdrawal from the EU in mind. However, the bilateral negotiations in prospect between the UK and the EU27 might provide an opportunity to address these issues. The outcome could well affect – and be affected by – EU equivalence with other third countries (like the US) as well as the UK.

27 Indeed, there is a case for establishing broad global standards of regulatory equivalence under the auspices of the G20. Global standards are not in themselves legally binding. They provide a common framework under which global financial services can develop, depending on confidence in, and mutual recognition of, the regulatory and supervisory machinery both by regulators and market participants. There are two complementary aspects to establishing global standards of equivalence:

- *Ease of equivalence determination:* "Equivalence regimes are easier to establish when they are based on international standards. For example, while the EU and US treat prudential capital for banks differently, both regimes are equivalent, as they are implementing a Basel international standard."[31]
- *Maintaining market access:* Global standards are not currently designed to provide market access. "Would it be possible to base market access on common recognition of higher level global standards which are transparent and subject to regular review? … A much broader commitment to open up market access using global standards would be a decisive step in the right direction at a time when openness of the world economy is more under threat."[32]

28 Working on a global approach of this kind – through the G20 with the FSB, the BCBS and IOSCO – is likely to be increasingly important for the UK authorities, given their loss of influence in the EU as a result of Brexit. But global rules limit the scope for unilateral regulation (or deregulation) in any one country. Regulation (or deregulation) needs to be multilateral, if it is to be effective. An effective global approach also depends on close cooperation – and mutual trust – between supervisors.

29 *Global standards of good market practice:* In addition to establishing standards of regulatory equivalence at global level, there is scope for setting common standards of good market practice at global level in the cross-border securities markets through IOSCO. Although IOSCO itself does not have enforcement powers, it does check with securities regulators whether they are complying with IOSCO standards. The IMF and the World Bank do the same. Private sector initiatives like the FICC Markets Standards Board, which has been established to set standards of good conduct in FICC markets internationally, should be complementary to IOSCO. Trade associations like ICMA also play an important role in setting standards of good market practice.

30 *Other global issues affecting capital market integration:* There are several other global issues affecting capital markets which require a global response, but where it is not yet clear whether they will become forces for integration in international capital markets or fragmentation:

- *Climate change:* There has been a global response to climate change through the Paris Agreement in December 2015. But it is not yet clear what the new US

27. Mark Carney, Governor of the Bank of England: The Spectre of Monetarism: Roscoe Lecture, 5 December 2016.

28. See: Cross-Border Regulation Forum to IOSCO Task Force on Cross-Border Regulation: Key Issues and Challenges Relevant to the Regulation of Cross-Border Business in Financial Services, 28 May 2014 and 23 February 2015.

29. See: Steven Maijoor, Chair of ESMA: Review of the European Supervisory Authorities: Opportunities to Ensure a Safe and Sound Financial System: European Parliament, Brussels, 8 February 2017,

30. For an explanation of the current arrangements, see: European Commission Staff Working Document: EU Equivalence Decisions in Financial Services Policy: An Assessment, 27 February 2017.

31. Sir Jon Cunliffe, Deputy Governor, Financial Stability, Bank of England: Evidence to the House of Lords European Committee: Brexit: Financial Services, 15 December 2016.

32. Andrew Bailey, Chief Executive of the FCA: speech on global standards: Berlin, 26 January 2017. See also Andrew Bailey's letter to Andrew Tyrie, MP, Chairman of the Treasury Committee, House of Commons, 13 January 2017.

Administration's policy will be, and what impact this will have. The outcome may affect international capital market involvement in sustainability (eg through the issue of green bonds), for which international standards are set through the ICMA Green Bond Principles.

- *Infrastructure finance:* The new US Administration is widely expected to promote long-term infrastructure projects (eg by financing them with long-term Treasury debt). The European Fund for Strategic Investments (EFSI) has already made some progress on infrastructure financing in Europe. But it is not yet clear to what extent private sector financing of infrastructure projects in the international capital markets will be able to make significant headway, if capital markets fragment.
- *FinTech and digitalisation:* The impact of technological changes (eg distributed ledger technology and RegTech) on the functioning of markets is not yet fully understood. While technological changes have the potential to increase the market efficiency of back offices and compliance functions, they also carry risks (eg as a result of cyber-crime). It is not yet clear whether they are a force for integration or fragmentation (or both). There may also be implications for financial stability, which the FSB has been asked to consider.
- *Corporate tax base:* The G20's Base Erosion and Profit Shifting initiative is intended to create a fairer system for taxing international corporates, and the OECD is leading the global effort to achieve this. It is not yet clear how successful the initiative will be.
- *Tax on debt interest and dividends:* There are new proposals in the EU[33] and in the US to change the balance between tax rates on debt interest and on equity dividends. The EU and US proposals are not the same. New proposals will only work in a beneficial way if they help rather than hinder growth in the real economy, and if they are introduced globally in a consistent way rather than in some markets but not others.

31 In all these cases, the critical point is, at a minimum, to preserve the international integration of wholesale capital markets. Retail markets are to a large extent still fragmented along national borders,[34] and there is a strong political interest in consumer protection at national level, where political accountability lies. If new restrictions are imposed by the authorities on wholesale markets with the consequence, whether unintended or intended, of fragmenting them, then there is a question whether the wholesale market would develop offshore, as the Eurobond market did after the IET was imposed in the US in 1963.[35]

Conclusion

32 With the support of its members working in the international capital markets, ICMA will continue to encourage international capital market integration and to do what it can to help prevent capital market fragmentation, engaging with the authorities at national, European and global level.

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33. The European Commission proposal for a Common Consolidated Corporate Tax Base.

34. See Nicola Barr and Aldo Romani, EIB: Europe's First New Global Note: IFLR, November 2006.

35. "The US Interest Equalisation Tax of the 1960s and 1970s, intended to improve the US balance of payments and encourage domestic investment by taxing investment in foreign securities, is a well-known example of the unintended consequences of ill-focused policy, driving the US market in foreign companies' bonds offshore, where it has remained ever since." ICMA: Economic Importance of the Corporate Bond Markets, 2013.

The euro repo market break-down over the 2016 year-end

By Andy Hill

Introduction

In February 2016, ICMA's ERCC published the report, *Closed for Business: a Post-Mortem of the European Repo Market Break-Down over the 2016 Year-End*, which discusses the extreme volatility and market dislocation experienced in the euro repo market[36] over the 2016 year-end, which is unprecedented in the post-euro era. The extent of the market break-down has raised concerns over whether this was a one-off event, or rather this is an indication of a market that no longer functions efficiently and effectively under stressed conditions, and signals a new normal for the European short-term funding and collateral markets. The report, based on available market data and interviews with market participants (including repo market makers, buy-side firms, and infrastructure providers), attempts to document the market moves and behaviour in the final week of December of 2016. More specifically it seeks to answer: (i) what happened? (ii) why did it happen? and (iii) what possible measures can be taken to avoid future extreme dislocation?

What happened?

Year-end effects are nothing new in the repo and short-term funding markets. Banks and other liquidity providers generally reduce their activity over the calendar year-end (which in many jurisdictions is also financial year-end), primarily due to reporting or statement date obligations, and so markets tend to be thin and therefore more volatile. As more banks have fallen under the regulatory reporting obligations related to Basel III, these liquidity effects have become more frequent, and more pronounced, particularly around month and quarter-ends. Accordingly, the market had been anticipating a difficult 2016 year-end well in advance.

As year-end approached, dealers and fund managers report that the "turn" (ie the three-calendar day period that straddles year-end) was becoming more expensive in terms of borrowing HQLA. In the case of German Government bonds, the most sought after HQLA, the implied repo rate was around -2%, compared with normal spot-next[37] and tom-next[38] levels of around -0.65% to -0.70%. It was not until 28 December, when the actual year-end date (30 December) became the "spot" settlement date that the market broke-down.

On 28 December, spot-next repo rates for German specials in the interbank began to gap as it became clear that there were very few offers. Many specials opened-up around -4% (compared to a recent norm of around -1%), and as offers were lifted, rates quickly moved "tighter" (i.e. lower) to around -6% to -7%. These moves were mirrored in the specials markets for other "core" sovereign bonds, including France, Belgium, The Netherlands, and Austria. There are numerous examples of extreme "prints" across all the markets (as low as -15%), while there are anecdotal reports of dealer-to-client transactions in specific ISINs printing as tight as -20%.

While most year-end specials trading seems to have taken place on 28 December, the vast majority of general collateral financing took place in the tom-next market on 29 December. In the GC market lenders of collateral are looking to borrow cash on a secured basis, while borrowers of collateral are looking to place their cash

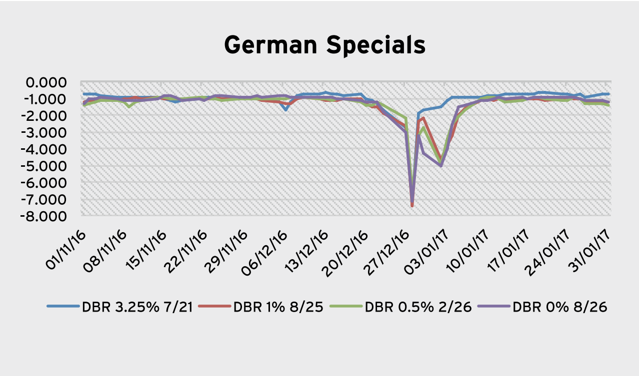
36. It should be noted that similar dislocations were experienced in the sterling repo and short-term funding markets, and largely for similar reasons; however, the extent of the dislocations and price volatility was not as severe as that of the euro markets.

37. Spot-next is a one-day repo with the first leg settling two days after trade date ("spot") and the second leg settling three days after trade day (ie the next day). Spot-next and tom-next are the most popular traded terms for euro repo markets.

38. Tom-next is a one-day repo with the first leg settling one days after trade date (literally, tomorrow) and the second leg settling two days after trade day (i.e. the next day). Spot-next and tom-next are the most popular traded terms for euro repo markets.

against receiving collateral (primarily HQLA). As with specials rates the previous days, it soon became clear that the market was short of collateral, particularly HQLA, and GC rates quickly gapped. The weighted average rate for German tom-next GC traded in the interbank market was close to -8%, with a low print of -9%, while French GC also averaged around -8%. Again, there are anecdotal reports of trades with non-banks printing as low as -25%.

Figure 1: German specials rates

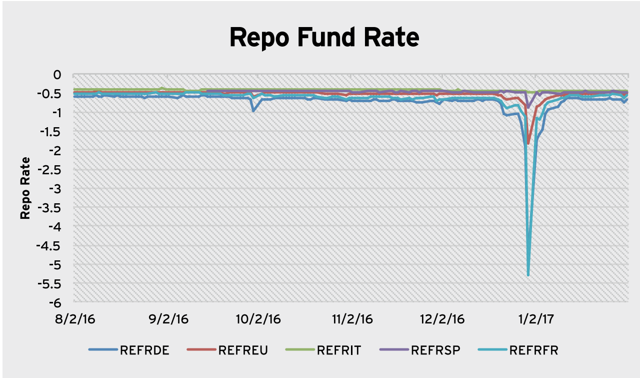


Source: Nex Data Services Limited (BrokerTec)

How the buy side managed

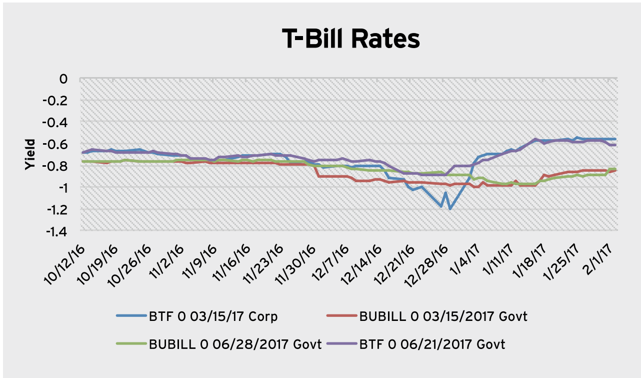
What becomes clear is that, while banks and their clients were primed for a particularly difficult year-end, even months in advance, there is only so much market participants can do to mitigate their year-end exposure. As one fund manager described the experience, "It was like watching a train smash in slow motion; you could see it happening, but could do nothing about it". Banks were already allocating their limited balance sheets and squaring their books as early as October, while many buy-side firms (real money and leveraged) required the flexibility to manage their liquidity and collateral right up until the day before the turn. It would seem that some buy-side firms were able to leverage bank relationships and negotiate some last-minute repo liquidity, albeit at a cost. Others, unable to access the repo market, could only resort to buying short-term assets, such as T-bills, at distorted levels, only to sell them again a few days later at much cheaper levels, as well as paying an inflated bid-ask spread.

Figure 2: Euro GC rates[39]



Source: Bloomberg

Figure 3: T-bill rates



Source: Bloomberg

Why did it happen?

The interviews strongly support the argument that the year-end break-down was the result of a perfect storm driven by three key factors: (i) market positioning; (ii) the effects of quantitative easing (compounded by an inadequate lending programme); and (iii) regulatory impacts on bank intermediation.

Positioning

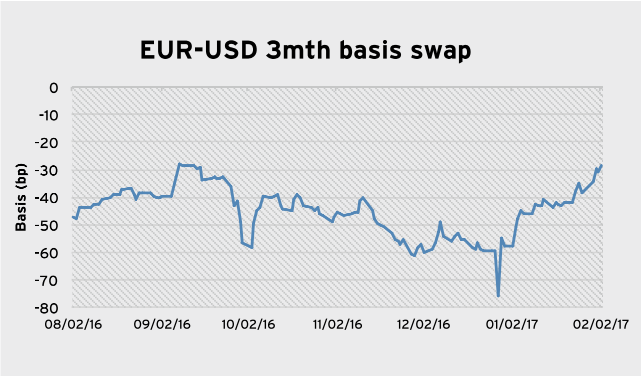
Participants report that in the final weeks of 2016 there was a significant increase in the shorting of core euro government bonds, both as outright directional trades and as basis trades.[40] This short-selling, both from dealers and leveraged funds, increased repo demand going into year-end.

39. The Repo Funds Rate (RFR) is a daily euro repo index calculated from trades executed on the BrokerTec and MTS electronic platforms. All eligible repo trades are centrally cleared and RFR Euro is calculated and published by Nex Data Services Limited. RFR Euro is calculated with repo trades that use sovereign government bonds issued by any country in the euro area.

40. A government bond basis trade entails buying or shorting a cash bond against shorting or buying a futures position. Shorting the basis means selling the bond and buying the future, with a view that the cash bond will cheapen relative to the future. This transaction also entails borrowing the cash bond.

Another key consideration is the fact that structurally European banks are very long of euros (primarily as result of ECB monetary policy) and short of dollars. This is reflected in the EUR-USD currency basis swap, which makes borrowing USD relatively more expensive than borrowing EUR.[41] As year-end approached this basis began to move significantly, as banks struggled to lend their euros and borrow offshore dollars.

Figure 4: EUR-USD currency basis swap



Source: Bloomberg

Quantitative easing

By the end of 2016, the ECB's Public Sector Purchase Programme (PSPP) had absorbed over €1.2 trillion of euro government bonds, of which over €300 billion were German Government bonds (around 27% of total outstandings), and €240 billion French Government bonds (around 15% of total outstandings). This has precipitated a slight premium in German and French GC rates relative to other euro-area sovereign markets (by around 20bp and 15bp respectively) while both increasing the number and relative spread of German specials. In theory, so long as PSPP holdings are made readily available through the repo or securities lending markets, collateral shortages and extreme specialness should be largely mitigated. Of course, a like-for-like, collateral-versus-collateral lending scheme does not help in terms of overall collateral scarcity, but this was partly addressed with the ECB's introduction of a bond-versus-cash repo facility in early December 2016. However, participants suggest that even this initiative did not help with year-end pressures, and may even have contributed to the break-down, due to the facility's fragmented and largely inaccessible nature.

Regulation

It is now a well-established reality of the post-Basel III era that banks are forced to reduce their trading activity and liquidity provision around month-end reporting dates, particularly quarter-end, and critically at year-end, when banks hoard HQLA to meet LCR requirements, deflate their balance sheets to meet Leverage Ratio targets, and effectively "close for business". Dealers explained how they were unable to provide balance sheet and make prices to clients over year-end, while fund managers related stories of relationships being levered and favours being pulled to avoid being stranded over year-end. As one major blue-chip fund manager pointed out, the inability to get a repo quote on 29 December, at *any* rate, would have technically put them in default.

Possible measures to avoid future dislocations

There is a concern that the market break-down over year-end was not an isolated incident, and that this is a sign of things to come, with future quarter-ends, and perhaps even month-ends, also experiencing extreme price and liquidity dislocations. Effectively, the 2016 year-end could be heralding a new "normal" for the European repo markets. It is notable that in January both GC and specials rates had not fully reverted to pre-year-end levels. It further raises questions about how well the repo market could cope under stressed market conditions (remembering that previously it functioned efficiently through both the 2008 Lehman default and the 2010-12 sovereign crisis).

Among the possible measures discussed by participants the most prominent were the suggestion for a different treatment (and possible exemption) for SFTs under the Leverage Ratio, further improvements to the PSPP lending scheme (ideally centralizing and standardizing an accessible lending programme), giving non-banks access to the ECB deposit or repo facilities, and reviewing more carefully the potential impacts of projected regulation, such as Net Stable Funding Ratio and CSDR mandatory buy-ins.

Conclusion

The volatility and dislocations in the euro repo market over the 2016 year-end, while to an extent anticipated, were unprecedented in their severity. It is reasonable to conclude that, at the end of December, the euro repo

41. Interest rate parity theory suggests that the foreign exchange forwards markets will always ensure that the relative LIBOR cost of borrowing in any currency will be the same. However, it can often be cheaper to borrow in one currency through the FX forwards. The currency basis swap reflects this relative disparity. Basis swaps are usually expressed as one currency against the USD, and a negative basis suggests a relative cheapness to borrow in that currency with respect to USD.

It seems unlikely that one single solution, either by regulatory or monetary policy makers, will provide a quick fix.

and short-term funding markets effectively broke down, something that did not happen either during the Lehman crisis or over the sovereign bond crisis. The factors driving this break-down are multiple, and very much acted in confluence to precipitate the perfect storm. A shortage of readily available HQLA as a result of quantitative easing and the reluctance, or lack of capacity, of banks to provide year-end funding liquidity are key contributors, while market positioning, both in government bonds and currency basis, accentuated the pressures. As the ECB's bond purchase programmes are set to continue, and as more regulation puts pressure on banks' balance sheet and intermediation capacity, there is a very real concern that the market behaviour over the 2016 year-end is not a "one-off" event, and could herald the start of a new normal. This could heighten risks related to banks' and firms' ability to meet margin calls, which in turn could have systemic consequences.

It seems unlikely that one single solution, either by regulatory or monetary policy makers, will provide a quick fix; rather it is likely to require a number of measures as well as more rigorous, ongoing analysis of the possible impacts of various policies, in order to ensure the smooth and efficient functioning of the European funding and collateral markets.

March 2017 quarter-end

At the time of publication, the March quarter-end was anticipating tighter GC and specials rates (around -2% to -2.50% for Germany), though nothing as dramatic as seen over the 2016 year-end. In the weeks leading up to quarter-end, the market had shown a high degree of uncertainty and nervousness, with repo rates being priced very wide (and with GC trading below -3%). This should not be surprising, given the extreme levels seen at the end of December, and the relatively asymmetrical risks related to anticipating demand and supply imbalances over statement dates. However, balance sheet pressures look to be much less constrained, while the EUR-USD basis has also normalized, which is reflected in quarter-end rates settling at slightly easier levels than originally anticipated. However, it needs to be remembered that this is relative, and that the GC and specials rates observed over quarter-ends, including those prior to the 2016 year-end, remain significantly distorted compared to intra-statement date levels.

The above article is a summary of the more detailed report, which can be found on the ICMA website.

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Pressure on repo markets: squeezing pensioners

By Paul van de Moosdijk

Pension funds are responsible for providing adequate retirement income. Their long-term objective is to maximize their efficiency and investment returns for pensioners. They are significant users of OTC derivatives, with the aim being to stabilize their coverage ratio. Pension funds today are increasingly confronted with higher collateral obligations alongside shorter settlement cycles, whilst at the same time the ability to generate adequate collateral is being limited by market circumstances and regulation. Especially in extreme market conditions, including those being witnessed across reporting period end-dates, this can lead to material adverse impacts on pensioners in terms of cost and risk.

Historically pension funds could use OTC interest rate derivatives to hedge their future liabilities, and could utilize both high quality government bonds and cash for related collateral management purposes. This was beneficial as pension funds typically hold large amounts of government bonds. Under EMIR, however, central clearing is required for such interest rate derivatives with pension funds consequently required to post Initial and Variation Margins (IM and VM). IM is a new collateral requirement that can range between 5% and 15% of the nominal amount of the derivative contract. In addition, cash VM is required by CCPs, or pushed for by banks under bilateral credit support agreements that have been renegotiated as of 1 March 2017.

In this context pension funds need to be able to borrow and lend cash, in any amount at any given point in time, to be able to meet collateral calls. This is a key liquidity risk which pension funds face today.

Banks are subject to regulatory reporting obligations related to Basel III, such as the Leverage and Liquidity Coverage Ratios. The Leverage Ratio threatens the continuation of low margin activity such as repos, whilst the Liquidity Coverage Ratio makes short-term funding less attractive. Consequently, banks are reassessing their business models and many now choose to limit their market making and liquidity providing repo activity. Many buy-side firms are passive investors with transaction profiles which are unattractive from a bank balance sheet perspective, prompting banks to allocate less capacity as they take into account the overall value of their clients.

Following the ICMA ERCC study of the year-end repo market, it can be concluded that repo markets bear great risk of dysfunction across reporting period end dates and/or during times of stress. Repo rates at year-end 2016 of up to -15% have been reported by the ICMA study; but, even at these rates, it needs to be noted that not all market participants had access to the repo market. Yield impacts for alternatives, such as short-dated government bonds or T-bills, fully reflected these year-end repo rates, becoming significantly more expensive into, and subsequently cheapening after, year-end.

Banks have a natural advantage over non-banks, given they have access to central bank deposit facilities. As pension funds do not have this benefit, they need to take full responsibility, within the constraints of the market and regulation, to mitigate potential liquidity risks during times of stress. This leads pension funds to investigate new ideas such as peer-to-peer trading and access to cleared repo, to improve access to transformation. Both are very much in development for non-banks and yet have many barriers to entry, whether from an operational, legal or counterparty perspective. Alternatives, such as holding excess cash or generating cash via a fire-sale, have a significant negative impact on retirement income.

In conclusion, solutions should be further investigated to mitigate these liquidity risks and they need to be a joint effort among market participants. Pension funds should be able to borrow or lend cash, in any required amount at any given point in time. Furthermore, their ability to do so must be reliable in stressed market conditions and should not create material adverse impacts on pensioners, such as cost and risks. These solutions could include amendments to bank capital rules to allow the posting of high quality assets as VM or to help prevent future dysfunctioning of the repo market. If this is not possible, centralized collateral transformation solutions could be offered to pension funds to enable the exchange of high quality government bonds for cash. Overall this would reduce liquidity risk for pension funds.

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The common ownership debate

Sweeping academic theories about diversified equity investment and market competition dynamics risk harming investors. *By Peter De Proft*

Overview

Over the past year, questions regarding the influence of asset managers on market competition dynamics have emerged in the public debate. Academic hypotheses have sought to attribute negative impacts on market competition to increased levels of common ownership. In this discourse, asset owners, and managers acting on their behalf, that hold shares of more than one company in an industry are referred to as common owners. The common ownership theories suggest that these owners reduce incentives for rival firms to compete, and promote economic imbalances in society. The academic work in this area is in its early stages and conclusions or policy recommendations are therefore premature.

Academic theories

The foundation for these theories is based in large part on studies of price increases in the airline industry during the period 2001 to 2013, and the banking industry during 2004 to 2013. Part of the problem is that these far reaching economic theories are based on early stage research that (i) covers two industries during periods of significant change, (ii) reflects misconceptions around the asset management business model, and (iii) fails to provide a robust causal mechanism by which market competition is reduced.

Accepting this economic premise as its foundation, a number of further academic papers, this time from the field of law, have suggested major policy changes as remedies. Striking among them are the suggestions to limit investment by index fund managers to one company per sector; to limit ownership to 1% in a concentrated industry; or to prohibit asset managers from exercising voting rights on behalf of shareholders.

Although this research is in the early stages, these ideas have been actively promoted by their authors beyond the realm of academia, to mainstream media and anti-trust authorities. Collectively, these papers risk seriously misinforming debate about the healthy functioning of capital markets with negative implications for both savers and the real economy.

EFAMA perspective

In the context of EFAMA's mission to promote investor protection, ethical standards and professionalism throughout the industry, we welcome research and debate that illuminates market developments, in the interests of ensuring that the principles of fair and healthy competition are well protected. However, we are concerned that the recent common ownership narrative illustrates that certain realities of the asset management business model are not well understood. Further, we strongly reject the idea that funds and asset managers – in their many and various shades of strategy, approach and client base – have an interest in reducing market competition. The application of academic theory with little regard for the practical realities for the industry or its achievements risks serious disruption.

Asset management, share ownership and data reporting

By its very name and nature, the common "ownership" discourse suggests a conflation of asset management and asset ownership. Asset managers are of course not the asset owners, common or otherwise, but rather manage assets on behalf of highly diverse clients, from pension funds to sovereign wealth funds, insurers to banks, and charities to individuals**.** Fueling this misconception appears to be the widespread use of shareholder reporting data to represent ownership, eg manager X owns Y% of a stock, an industry, an index. While the appeal of this data may be its ready availability through online data portals and regulatory filings, shareholder reporting represents an aggregated view of shares managed by asset managers on behalf of diverse clients. These clients in turn act in different ways, mandating myriad different strategies, in accordance with diverse objectives and expectations. Further, even in industries with a high proportion of shares managed by global asset managers, these remain minority interests.

Shareholder engagement and voting

What then of the suggestion to prohibit asset managers from voting on behalf of their clients? Shareholder engagement is increasingly recognized by regulatory authorities as an important element of fiduciary duty, and one that has been reinforced by the recent revision of the EU Directive on Shareholders Rights. In the case of funds, asset managers play that role on behalf of their clients, the asset owners. The implication by some commentators that shareholder engagement could be a mechanism by which asset managers impact competition and prices reflects fundamental misunderstandings. The purpose of engagement is not to interfere with the day-to-day operations of a company; shareholder engagement is focused on promoting a long-term approach to generating shareholder value through high standards of corporate governance and sustainable business practices.

The value of diversification and the impact of limiting it

Diversified investment funds, whether active or index-based, can deliver significant value, as risk-managed portfolios able to meet the needs of a wide spectrum of investor risk profiles and objectives. The channeling of invested capital to a multitude of companies, projects and other investments, via the capital markets, fuels growth, jobs and innovation. Any proposal to limit the ability of funds to invest in more than one company per sector could significantly distort this process. Ironically, this approach might reduce capital available to some companies resulting in less competition. And, from an investor perspective, the lack of diversity would materially increase the risk profile of their portfolios.

While frequently addressed to index funds, which by their nature may replicate a market or sector, the assumptions around common ownership and proposed remedies impact *all* equity funds and asset managers. Misinformed theories are discouraging efforts to put Europe's high levels of retail cash savings to more productive use. In addition to harming investors, these remedies would harm the very companies that create jobs in the real economy.

Two new papers examine the evidence

We are optimistic, however, that two more recent papers, authored in early 2017, begin to unpack some of the key misconceptions and may serve to inform debate on common ownership theories. In *Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance,* Professors Edward Rock and Daniel Rubinfeld, of New York University School of Law, provide their own critique of the economic evidence and examine the resulting policy proposals. The authors conclude that they are unconvinced by the broad claims of the existing literature on common ownership theories, and draw attention to the thirty years of regulatory reform that has focused on encouraging diversified institutional investor involvement in corporate governance.

In *The Competitive Effects of Common Ownership: We Know Less Than We Think*, competition experts Dr Daniel O'Brien and Dr Keith Waehrer examine the research on this subject to date, and conclude that the theory of partial common ownership does not yield a specific relationship between price and the Modified Herfindahl-Hirschman Index (MHHI) – a measure of market concentration used in much of the research. As factors other than common ownership affect both price and the MHHI, it follows that the relationship between price and the MHHI does not necessarily reflect the relationship between price and common ownership, and statistical correlations may therefore show, even where common ownership in fact plays no actual causal role.

In conclusion

EFAMA encourages well-informed dialogue on the subject of investment and the capital markets, in the interests of all market participants and end-investors. The academic work addressing common ownership is however in its very early stages, and policy recommendations based on it are premature. Diverging views within the academic world are also illustrative of the misconceptions in the economic theories on common ownership. Diversification, both across and within industries, represents a key driver of risk and return characteristics of an investment portfolio, serving to mitigate the impact of idiosyncratic risk. Investment funds help make diversification accessible, whether to retail investors directly, or the institutional investors, such as the insurance companies and pension funds that act on behalf of millions of households. At the same time, they represent an important source of capital for the companies that comprise the real economy. Limitations to diversified investment within an industry clearly equates to fewer companies benefiting from access to capital. Research on this subject to date does not justify sweeping policy change, much less when such policy change could expectedly harm companies, reduce competition or discourage the channeling of savings to investments.

efama
European Fund and Asset Management Association

Peter De Proft is Director General of EFAMA, which is the representative association for the European investment management industry. Through its 28 member associations and 61 corporate members, EFAMA represents €23 trillion in assets under management of which €14.1 trillion is managed by 58,400 investment funds (at end-2016).

Looking back on 37 years in the international capital markets

By Waltraut Burghardt

Fierce competition amongst securities firms back in the late 1970s and the early 1980s brought about substantial changes in syndication and underwriting techniques in the international capital markets. But price discovery was still a very opaque process, with issuers relying on their mandated partners' expertise and trusting them to be fair, especially when it came to "freeing bonds to trade".

The "bought deal" was introduced to the Euromarket in an attempt by the larger underwriting houses to end the dumping of bonds into the market by smaller firms, whose capital base was too small to afford such underwriting commitments. Increasingly, issuers entrusted one or two leads to underwrite and sell a transaction very often without any further syndication.

When I joined OKB[42] in late 1979, there were two major developments on the verge of changing the syndication process: the invention of the bond yield calculator by HP and the spreadsheet programmes by Lotus Software. Until the late 1980s, the need to get more transparency into the price-finding mechanism and the aftermarket trading practices was partially met by the AIBD's (the predecessor of ICMA) efforts to provide publications and the dissemination of data via numerous vendors. But it was finally the Bloomberg terminal which made a big step in shaping today's market practices – by offering practical analytical tools and real-time prices to a market place that had so far relied on captive technology and information.

The early 1980s opened a period when the top-tier Wall Street firms became more international and developed their businesses in London. This resulted not only in further competition but also initiated a long-running debate among market participants about syndication processes and fee structures – to finally bring some order into the competition for mandates. The concept and discipline of the fixed price reoffer, although introduced much earlier, became the standard in the 2000s, in conjunction with the pot deal structure, leading to transparency of investors in the order book and a defined fee structure for the issue negotiated with the syndicating banks.

More recently, we have been having to cope with intense regulation, the shrinking and restructuring of balance sheets in the aftermath of the latest financial markets crisis – already nearly ten years ago – as well as the lack of credit demand. Old and new challenges are waiting ahead. Some pertain to technological changes – for example, there have been several attempts to leave distribution or secondary trading to bespoke platforms – and others involve anticipating and reacting to the flow of information driving the behaviour of highly interconnected markets.

Recognizing the indisputable advantages of global markets, I remain a strong believer in the need for a healthy intermediary system of banks for all major asset classes to better manage volatility and maintain liquidity. Regulation must be drafted to be practical with the aim of preserving the free flow of capital. With the benefit of hindsight, we should not be shy of adapting or even repealing legislation when there is evidence this is needed.

Let me conclude with a word regarding my experience with people and institutions. Over many years, I was glad to work with dedicated and bright colleagues, enabling us to engage with institutions open to a very professional and non-bureaucratic exchange of views and experiences, thereby avoiding most market traps and dealing with the inevitable shortcomings. Fairness and ethical behaviour guided our decision-making process. This was a recipe to get the best-qualified information and achieve optimal execution with intermediaries, and a lasting access to investors even in volatile market circumstances. On a more personal note, it was a privilege for me to increase the potential diversity amongst colleagues, further integrate women at work and allow room for individual dialogue.

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42. OKB, the Austrian export credit agency with the unconditional guarantee of the Republic for its financial obligations granting it at that time the benefit of the highest credit rating.

Summary of practical initiatives by ICMA

The practical initiatives on which ICMA has been engaged over the past quarter with, and on behalf of members, include the following:[43]

Capital Markets Union

1 ICMA responded on 10 March to the European Commission consultation on its *Capital Markets Union Mid-Term Review*. In its response, ICMA focused on its main current work streams relating to Capital Markets Union.

Primary markets

2 *PSIF:* The Public Sector Issuer Forum (PSIF), for which ICMA provides the Secretariat, met at Finanzagentur in Frankfurt on 24 March. The agenda included discussions with the ECB on QE and on financial stability, and presentations by the Governments of France and Poland on their respective green bond issues.

3 *CIF:* The ICMA Corporate Issuer Forum (CIF) had a useful discussion at its meeting in London on 26 January with Martin Egan of BNP Paribas, Chair of the ICMA Primary Market Practices Committee, on new issue practices.

4 *FMSB:* After consulting members, mainly through the ICMA Primary Market Practices Committee, ICMA responded, by the deadline of 17 January, to the FICC Markets Standards Board (FMSB) on its draft new issue guidelines. While the FMSB guidelines are broadly consistent with the ICMA Primary Market Handbook, ICMA submitted a number of comments.

5 *MAR:* ICMA met the FCA, at its request, in January to discuss market soundings under the new Market Abuse Regulation (MAR) regime. ICMA has continued to hold conference calls for members, with around 250 participants on one recent call.

6 *Prospectus Regulation:* Following the publication of the European Commission's request to ESMA for technical advice on possible delegated acts concerning the Prospectus Regulation, ICMA has circulated a paper with its initial views relating to Level 2 measures to ESMA, the Commission and various other official institutions. On 7 March, ICMA also chaired a London Stock Exchange roundtable with the Commission's Head of Securities Unit on Prospectus Regulation Level 2 measures.

7 *Bank of Italy Article 129 rules:* ICMA has been working with members on the practical implementation of the Bank of Italy Article 129 rules on post-issuance reporting, and has engaged with the Bank of Italy on the market's most significant concerns.

8 *PRIIPs Regulation:* ICMA is continuing to discuss with both primary and secondary market participants the implications of the Packaged Retail and Insurance-based Investment Products (PRIIPs) Regulation, taking account of the proposed one-year delay in implementation until 1 January 2018, and has circulated standard language for selling restrictions and legends for prospectuses to the ICMA primary market constituency.

9 *MiFID II product governance:* ICMA continues to discuss the implications of the forthcoming MiFID II product governance regime with members. In January, ICMA responded to ESMA and UK FCA consultations.

10 *LIBOR evolution:* ICMA responded on 15 February to an additional consultation by the ICE Benchmark Administrator in relation to the evolution of ICE LIBOR.

11 *ICMA Primary Market Handbook:* ICMA published on 27 February various amendments to the ICMA Primary Market Handbook.

Secondary markets

12 *European Commission Expert Group on Corporate Bonds:* ICMA is represented on the European Commission Expert Group on Corporate Bond Market Liquidity. The Expert Group has been asked by the Commission to put forward recommendations by September 2017.

13 *MiFID II consolidated tape:* ICMA's Consolidated Tape Working Group has responded to ESMA's consultation on Regulatory Technical Standards specifying the scope of the consolidated tape for non-equity financial instruments, and expressed market participants' concerns over ESMA's proposal for multiple consolidated tapes.

14 *MiFID II Systematic Internaliser regime:* ICMA held two workshops, on 3 February and 27 March, of sell-side and buy-side market participants on the Systematic Internaliser regime under MiFID II, which is due to be implemented on 3 January 2018.

15 *ETP Mapping Directory:* The ICMA Electronic Trading Platform (ETP) Mapping Directory has been updated. It currently provides a single source of information on over 30 infrastructure providers.

16 *ICMA Buy-in Rules:* Taking into account responses from a member questionnaire, ICMA has revised its Buy-in Rules in consultation with the ICMA Secondary Market Practices Committee.

Repo and collateral markets

17 *End-year repo market disruption:* An ICMA study – *Closed for Business: A Post-Mortem of the European Repo Market Break-Down over the 2016 Year-End* – was launched on 14 February, and presented at the ECB in Frankfurt and the European Commission (DG FISMA) in Brussels.

18 *SFTR workshop:* ICMA held a seminar, jointly with ISLA, on implementing the Securities Financing Transactions Regulation (SFTR) at JP Morgan in London on 8 February, with over 200 attendees.

43. ICMA responses to consultations by regulators are available on the ICMA website.

19 *MiFID II and the repo market:* The ICMA European Repo and Collateral Council (ERCC) has written to the European Commission (DG FISMA) in an attempt to resolve concerns about transaction reporting of SFTs with ESCB counterparties under MiFIR and the application of MiFID best execution reporting requirements in the case of repos.

20 *ERCC Committee elections:* In the annual elections to the 19-member ERCC Committee, for which the results were announced on 20 February, three buy-side members – Swiss Re, BlackRock and PGGM – were elected, BlackRock and PGGM for the first time, from among 25 nominees.

21 *Repo market survey:* The ICMA ERCC has released the results of its 32nd semi-annual survey of the European repo market. The survey, which calculates the amount of repo business outstanding on 7 December 2016 from the returns of 65 offices of 62 financial groups, sets the baseline figure for market size at €5,656 billion.

22 *ERCC Guide to Best Practice:* A newly revised version of the *ICMA ERCC Guide to Best Practice in the European Repo Market* was made available for use as from 8 February. Whilst tidying up many minor details, this latest version of the Guide also introduces many elements of new, extended and refined best practice guidance. Perhaps most significantly, this latest version includes best practice updates in relation to negative repo rates; confirmation and affirmation; and margining.

23 *The ERCC AGM:* The 2017 AGM of the ICMA ERCC was held in Zurich on 20 March. Alongside presentations linked to the work highlighted in the other points in this summary of initiatives, there was a presentation on the latest developments in the European repo market from a buy-side perspective and update about the work undertaken by EMMI in the development of a pan-European repo index.

24 *Advisory groups:* The ERCC continues to contribute to the European Commission's European Post-Trade Forum (EPTF) and is also represented, through ERCC Ops Co-Chair Nicholas Hamilton, in the ECB's new Advisory Group on Market Infrastructures for Securities and Collateral (AMI-SeCo).

Asset management

25 *Leverage and asset management:* The Fund Liquidity Working Group of the ICMA Asset Management and Investors Council (AMIC) is preparing a report, jointly with EFAMA, on fund leverage, as a contribution to the continuing debate (eg between the FSB and IOSCO) on systemic risk and asset management.

26 *Covered bonds:* The Covered Bond Investor Council (CBIC) has been kept informed of evolving thinking in the European Commission on the harmonisation of EU covered bond rules. A draft framework, launched by the EBA in December 2016, will be used as the basis for further work.

27 *AMIC Excom:* The AMIC Executive Committee met on 1 March to receive a presentation from BlackRock on common ownership theories (in relation to asset managers and investors); a presentation by ICI Global on the regulatory implications of the new US Administration; and to discuss ongoing work on leverage, research unbundling, covered bonds, STS securitisation, and CCP recovery and resolution, among other issues.

28 *AMIC Council:* The AMIC Council, chaired by Bob Parker, met at Allianz GI in Frankfurt on 23 March, at which the ECB was one of the keynote speakers. Axel van Nederveen of the EBRD and Stéphane Janin of AXA, have been appointed Vice-Chairs of the AMIC.

29 *Bail-in:* The ICMA Bail-In Working Group, which has written to the ECB and the European Commission on the need for transparent, consistent and comparable treatment of bad loans and encumbered assets, and a consistent approach to subordination, is due to hold a workshop on 7 April at the EBRD in London, to which representatives of the ECB and the European Commission have been invited.

Capital market products

30 *European Commission Expert Group on Sustainable Finance:* ICMA is represented as an observer on the European Commission's High Level Expert Group on Sustainable Finance.

31 *Updating the Green Bond Principles (GBP):* With the GBP Executive Committee, ICMA is assessing responses to a questionnaire on updating the GBP.

32 *Global Green Finance Council:* A new Global Green Finance Council, coordinated by ICMA and involving a number of other trade associations, held its first meeting in London on 16 February.

33 *European Corporate Private Placement (ECPP):* A meeting of the Solvency II Working Group, a sub-group of the ECPP Joint Committee met in February to discuss the provision of market-based evidence and proposals to the European Commission for its review of Solvency II calibrations.

Other meetings with central banks and regulators

34 *Brexit:* ICMA has continued to keep in contact on Brexit with the UK, the euro area and the EU authorities, and to discuss with members – both in the UK and the EU27 – through ICMA Market Practice and Regulatory Policy Committees how it can best help them to prepare.

35 *Other ICMA meetings with central banks and regulators:* Vicky Saporta, Executive Director of Prudential Policy at the Bank of England, attended the ICMA Regulatory Policy Committee on 16 March for an exchange of views with members on the securities market impact of banking regulation.

36 *Official groups in Europe:* ICMA continues to be represented, through Martin Scheck, on the ECB Bond Market Contact Group; through René Karsenti, on the ESMA Securities and Markets Stakeholder Group; and through Godfried De Vidts on the ECB Macroprudential Policies and Financial Stability Contact Group and the European Post Trade Forum.

37 *Other official groups:* ICMA is a key partner of China's Green Finance Committee under the auspices of the People's Bank of China, and the Green Finance Study Group under the G20.

ICMA Regulatory Grid

38 The ICMA Regulatory Grid, which covers 26 new financial regulations affecting the cross-border securities markets in Europe, has been updated and is available to members on the ICMA website.

Primary Markets

by Ruari Ewing and Charlotte Bellamy

EU prospectus regime

As reported in the last edition of this Quarterly Report, a political agreement was reached on a new Prospectus Regulation, intended to replace the current Prospectus Directive regime, in December 2016. Following extensive advocacy efforts by ICMA and others, the political agreement at Level 1 is significantly improved from the European Commission's original proposal for bond market participants. In particular:

- A differentiated wholesale disclosure regime and exemption from the requirement to prepare a summary has been retained for bonds with a minimum denomination of €100,000 or where bonds are offered on an exempt basis (eg to qualified investors only) and admitted to trading on a regulated market, or a specific segment of a regulated market, to which only qualified investors can have access. The European Commission's proposal for a "unified" disclosure regime for retail and wholesale bonds, that would have significantly increased disclosure burdens for wholesale debt issuers, has not been taken forward.
- While there may need to be changes to risk factor disclosure practice in the light of new requirements in the Prospectus Regulation, risk factors will *not* need to be categorised into categories of "low risk", "medium risk" and "high risk", as per the European Commission's original proposal.
- The proposal that third country issuers would need to appoint a representative in the EU has not been taken forward.
- The timeline for implementation has been extended by one year, allowing more time for Level 2 measures to be consulted upon and finalised before the Prospectus Regulation applies in practice.

ICMA continues to engage fully with regulators as the legislative process progresses. At the request of the UK Treasury, ICMA prepared a table of technical comments on the final compromise text of the Prospectus Regulation dated 16 December 2016 for use during the jurist linguist process. It is hoped that many of these small, technical comments will be reflected in the final text that is published in the *Official Journal*.

In addition, ICMA chaired a roundtable with the European Commission at the London Stock Exchange on 7 March 2017, with Tilman Lueder, Head of the Securities Markets Unit at the European Commission, as well as issuers, investors, underwriters and law firms. This was an excellent opportunity to start discussions on the shape and direction of Level 2 measures under the Prospectus Regulation. The roundtable helpfully took place shortly after the European Commission had published a request to ESMA for technical advice on possible delegated acts under the Prospectus Regulation.

Perhaps the most important element of the Level 2 measures for debt securities is the approach to the detailed disclosure requirements that will be drawn up under Article 13 of the Level 1 text. This was the main focus of the roundtable discussion, and ICMA has since communicated its thoughts on this (and other) points to ESMA and various other relevant regulators and official institutions. ICMA staff also had the opportunity to discuss Level 2 measures further at the European Commission's workshop on this topic on 29 March.

It is clear that a key policy aim for legislators is the need to encourage issuers to prepare shorter and simpler disclosure, and to make it easier for companies to enter and raise capital on public markets by reducing burdens on issuers. With this in mind, ICMA has suggested:

- including a new, specific disclosure test for debt securities in the Level 2 text, reflecting the statement in Article 6 that the "necessary information" for an investment decision depends on, among other things, the type of the security;

ICMA has suggested including a new, specific disclosure test for debt securities in the Level 2 text.

- the new disclosure test for debt securities would be whether the information relates to the issuer's ability to pay interest or principal (ie the information that investors actually need for an investment decision in debt securities); and
- the current annexes to the PD Regulation that set out the detailed disclosure requirements for debt securities would be left as they are (which will ensure a smooth transition from the current Prospectus Directive to the new Prospectus Regulation with minimal extra burdens and costs for issuers), but they would become subject to the new, specific disclosure test described above.

This would mean that issuers could choose not to disclose a specific disclosure requirement if it was not pertinent to the new, security-specific disclosure test, thereby allowing issuers to prepare more focused, shorter disclosure.

The ICMA proposal could therefore achieve two key policy goals: (i) moving towards shorter prospectuses; and (ii) minimising costs and burdens for issuers to make it easier for them to enter and raise capital on public markets.

An alternative approach of reviewing the current annexes to the PD Regulation to amend or delete individual requirements is unlikely to achieve these goals. This is because it is difficult to see how any one or more of the disclosure requirements in the current annexes could be altered or removed such that it would make a significant difference to current disclosure practices, while retaining an appropriate level of investor protection given the wide variety of issuers and debt securities to which the PD Regulation annexes apply.

It is also worth emphasising that any drafting changes to the current annexes to the PD Regulation, even if they appear helpful, are likely to introduce increased costs and burdens for issuers when the Prospectus Regulation is introduced. This is because issuers' advisors and the regulators reviewing their prospectuses are familiar with the current requirements, which allow a smooth, efficient issuance process. The experience of implementing the amended Prospectus Directive in 2012 demonstrated that small drafting changes or inconsistencies (eg the use of the word "key" in one provision and "material" in another provision) can have significant practical implications, including increases in legal costs and delays to transactions.

For these reasons, it is hoped that regulators will consider the approach suggested by ICMA in approaching the preparation of Level 2 disclosure requirements for debt securities.

Separately, it is interesting to note that the European Commission appears to have chosen not to exercise its power to adopt delegated acts to supplement the new Level 1 requirements relating to risk factors. Those new Level 1 provisions are expected to be a key concern for issuers of debt securities, as they introduce new requirements to assess the materiality of risk factors based on the probability of their occurrence and the expected magnitude of their negative impact, to present risk factors in a limited number of categories depending on their nature and to mention the most material risk factor in each category, according to the issuer's assessment of materiality. It is not clear how these new, high level requirements will impact in practice, particularly without more detailed guidance or other measures at Level 2 or 3. It is hoped that ESMA may consider this in approaching its work on the Prospectus Regulation.

In terms of next steps, it is now expected that the Level 1 text will be published in the *Official Journal* in June or July 2017, and would enter into force 20 days after publication. Most provisions are expected to apply two years from the date of entry into force (ie in June or July 2019), although some provisions will enter into application earlier, as described in the last edition of this Quarterly Report. It is expected that ESMA will consult on Level 2 measures in mid-2017, and ICMA intends to engage fully in this process.

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PRIIPs Regulation

The PRIIPs Regulation is due to apply from 1 January 2018. Since the publication of the last edition of this Quarterly Report, ICMA has continued to work towards consensus on the practical steps that issuers and underwriters could take to avoid making vanilla bonds that could fall within the product scope of the PRIIPs regime available to MiFID II retail investors. This approach has been pursued in the light of: (i) the difficulty in concluding that all types of vanilla bonds are not "PRIIPs" (and therefore fall outside the product scope of the regime), given ambiguities in the legislative drafting and other relevant regulatory statements; and (ii) an expectation that the PRIIPs KID is an unworkable concept in the vanilla bond context (see previous editions of this Quarterly Report, notably the 2014 Third Quarter edition).

To this end, ICMA has circulated suggested selling restriction and prospectus legend language that envisages a restriction on sales and marketing to retail investors in the EEA that would apply from 1 January 2018.

The suggested language has been developed now to assist market participants in their compliance with the PRIIPs Regulation when it applies (ie from 1 January 2018). However, the PRIIPs Regulation is a complex piece of legislation and a full understanding of its implications for the vanilla bond market is still evolving. In addition, market participants' understanding of the MiFID II product governance regime, which will apply from 3 January 2018 and could have an impact on language in vanilla bond prospectuses, is still developing. In the light of this an issuer may, in a programme context, choose not to amend its programme documentation to cater for the PRIIPs Regulation now, but it is highly likely that it would then need to amend such documentation once market understanding has developed and before it commences an offer of securities that will conclude on or after 1 January 2018. ICMA understands that many issuers are therefore choosing to include the suggested language in transaction documentation now (although the selling restriction is expressed to apply from the date of application of the PRIIPs Regulation).

The inclusion of selling restrictions and legends in relevant documentation is only one measure of a range of measures that issuers and underwriters may wish to take to prevent in-scope securities being made available to EEA retail investors without a KID in contravention of the PRIIPs Regulation. ICMA continues to discuss other practical steps and considerations (including how the PRIIPs Regulation interacts with the MiFID II product governance regime) within its relevant primary market committees and working groups.

Another area to consider is the impact of the PRIIPs Regulation on outstanding securities. As there is no grandfathering regime under the Regulation, the secondary market is likely to be affected as well as the primary market. It would seem that secondary market participants are likely to need to ensure that any outstanding bond that could fall within the scope of the PRIIPs Regulation and where the issuer has not prepared a KID is not made available to EEA retail investors from 1 January 2018. (Because PRIIPs requires the seller to provide its retail customer with a KID before the customer is bound by any contract to buy the relevant product, it is difficult to see how a product for which there is no KID could be offered to retail customers.) How this is achieved in practice is likely to be a key question for secondary market participants as the implementation date draws closer. Ideas such as the inclusion of legends or warnings on screens was discussed on a preliminary ICMA call on this issue.

ICMA will continue to facilitate discussions among members in advance of the 1 January 2018 implementation date, bearing in mind the need to consider the PRIIPs Regulation alongside other regulatory regimes that will impact on debt issuance such as the MiFID II product governance regime and the Prospectus Regulation.

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MiFID II implementation: product governance

Following the coverage in the First Quarter edition of this Quarterly Report, ICMA is continuing to focus on how MiFID II's product governance provisions should operate in the context of the primary vanilla bond markets that are mainly institutional. In this respect, industry continues to await the outcome of the ESMA's October 2016 consultation (to which ICMA responded on 4 January).

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Bank of Italy Article 129 reporting requirements

The introduction of the Bank of Italy's Article 129 reporting requirements for underwriters in January was not as smooth as one might have hoped. Underwriters experienced a number of unexpected practical difficulties in operating the reporting platform, such as the need to upload information in stages over the course of a number of days, rather than at once; and ambiguities in some of the information reporting requirements. In the light of the practical difficulties and also the high quantity of information required under the rules, the costs to underwriters in complying with these rules have been very significant, with some banks considering the need to hire dedicated staff to handle the reporting burden.

The main specific issue that came to light is that the reporting platform did not operate in the way in which market participants expected for pot deals, in that it did not allow underwriters to split their reporting obligations (with one underwriter providing all information in respect of the securities and others providing only distribution information). Rather, for pot deals where more than one underwriter placed securities in Italy, the reporting system envisaged that the billing and delivery (B&D) bank would report all information. Unfortunately, this approach gave rise to a number of operational and legal concerns for underwriters, because it did not cater for "exceptions" to the pot (ie securities that are placed with investors by an underwriter that is not the B&D Bank.) In other words, it meant that B&D banks needed to rely upon other underwriters to provide them with information in order to report accurately to the Bank of Italy. This added to the time (and therefore costs) involved in reporting, as well as operational and legal risk for the B&D bank in the light of the potential for misreporting.

ICMA therefore engaged with the Bank of Italy to encourage a change to the reporting system allowing banks to split their reporting in the manner previously envisaged by market participants. Helpfully, Bank of Italy has been working on such an amendment, which is very welcome.

ICMA has also engaged with the Bank of Italy on certain other queries and concerns with the reporting system, such as the limited availability of an automatic upload system for reporting for vanilla bonds. We understand Bank of Italy is considering those points.

The Bank of Italy's willingness to consider changes to the reporting system to address practical concerns is very welcome. Given the significant compliance costs associated with these rules, market participants will also be grateful for any further changes that can be made to reduce the reporting burden on underwriters, while noting the Bank of Italy's need to gather statistics on new issues of debt securities in Italy.

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ICMA Primary Market Handbook amendments

ICMA published various amendments to the ICMA Primary Market Handbook in February 2017.

- *New Recommendation R3.1A* notes that the billing and delivery lead-manager should engage early with the issuer on allocation policies and priorities.
- *Amended Recommendation R3.7* includes additional detail on what lead-managers should discuss before sounding, further to the EU's new Market Abuse Regulation.
- *New Recommendation R5.7A* recommends that issuers in pot deals should be notified of the identities of any investors entered into the orderbook as "account X".
- *New Recommendation R12.4A and item 12.4B* recommends that any bank offering euro commercial paper to an investor(s) on behalf of an issuer should have a contractual relationship with the issuer in respect of such offering and explains that this is to assist the bank in its compliance with relevant conduct of business principles where possible by obtaining, for example, appropriate representations, warranties and undertakings from the issuer.
- *New Appendix A13a* sets out standard form selling restrictions for Hong Kong and Singapore.

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A new UK debt MTF

The London Stock Exchange has announced the launch of a new debt multilateral trading facility (MTF), the International Securities Market (ISM). The London Stock Exchange notes that the ISM will operate alongside the existing London Stock Exchange fixed income markets and is intended to provide issuers with an efficient and customer-centric admission process, involving issuers seeking admission to the ISM liaising with the London Stock Exchange only. It is understood that the London Stock Exchange will consult on the specific features of the ISM.

One important aspect of the ISM will be tax treatment for debt securities traded on it. Helpfully, HMRC has issued a consultation paper proposing a withholding tax exemption for debt traded on a UK MTF. The consultation paper notes that the UK Government is seeking to ensure that UK debt markets can compete internationally on an equal footing by ending the anomaly which leads UK companies to issue debt on overseas venues in order to benefit from a UK exemption.

ICMA intends to respond to this consultation welcoming the proposed withholding tax exemption for debt traded on a UK MTF.

The UK FCA has also been considering the UK's current debt market offering, noting in a discussion paper, entitled *Review of the Effectiveness of Primary Markets: The UK Primary Markets Landscape,* that the UK has no market equivalent to the Irish GEM market or Luxembourg's EuroMTF market. The announcement of the ISM as a UK MTF option for issuers therefore seems very timely. The FCA's discussion paper also explored retail access to debt markets, noting the possible unintended consequences of its current approach to the scrutiny of debt prospectuses in relation to issuances intended for retail investors. ICMA intends to respond to these two debt-related aspects of the FCA discussion paper in time for the deadline in May 2017.

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Other primary market developments

- *LIBOR evolution:* ICMA responded to an ICE Benchmark Administrator Consultation Paper in February 2017, noting that the reference to LIBOR being a rate calculated "as of 11.00" (which is helpful in ameliorating concerns regarding the impact of the evolution of LIBOR on continuity of bond contracts) was missing from the proposed revised Output Statement set out in the consultation paper. This point was addressed with the re-instatement of the reference to "as of 11.00" in the ICE Benchmark Administrator Output Statement set out in the feedback statement to the consultation.
- *EURIBOR evolution:* EMMI published a position paper setting out the legal grounds for the proposed reforms to EURIBOR in March 2017, explaining the background to EURIBOR evolution, EMMI's choice for a "Seamless Transition Path" and the benefits of a "Seamless Transition Path" from a contract continuity perspective.
- *Alternative Performance Measures:* ESMA's Q&A on its Guidelines on Alternative Performance Measures were published on 27 January 2017. No changes to market practice are anticipated as a result of these Q&A.

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ICMA Asia-Pacific Primary Market Forum

The second ICMA Asia-Pacific Primary Market Forum was held on 2 March in Hong Kong, and brought together issuers, syndicate banks, investors and law firms active in primary debt capital markets to showcase work by ICMA and its members on the regulatory and market practice issues unique to Asian capital markets.

With a strong emphasis on developments in global markets and the coordination of regulatory reform and featuring high-level expert speakers from the region, the event was catered to debt capital market professionals across origination, syndicate, legal, compliance and operations areas. The agenda is available on the event webpage.

The Forum was preceded by Primary Market Handbook seminars conducted by ICMA Senior Director Ruari Ewing in both Hong Kong and Kuala Lumpur.

Further background on ICMA in Asia-Pacific is on page 65.

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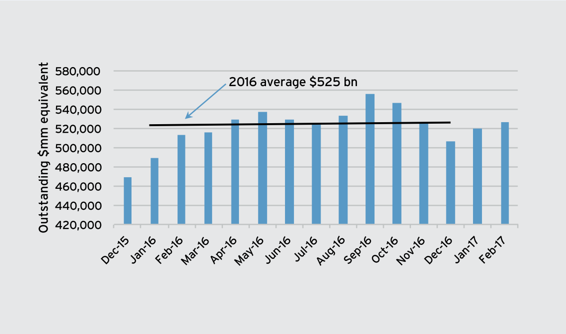
ECP market

Looking at Euroclear data, (across all currencies) ECP outstandings through 2016 stood at an average of just fractionally under $525 billion equivalent. The start of 2017 shows roughly this same level of outstandings being maintained.

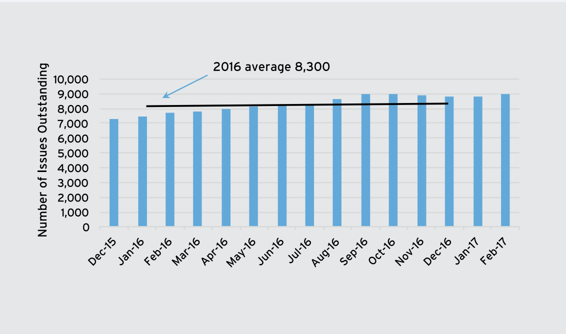
ECP (All Currencies)



Source: Euroclear

Looked at in terms of the number of issues outstanding, the 2016 average is 8,300, with the market staying fairly close to this level, albeit slightly higher in the second half of 2016 and going into the early part of 2017. This gives an implied average outstanding transaction size in 2016 of just over $63 million (equivalent). The weighted average tenor of new issues in 2016 was 84 days, falling to a low of 75 days in June and then rising to a high of 100 days in December.

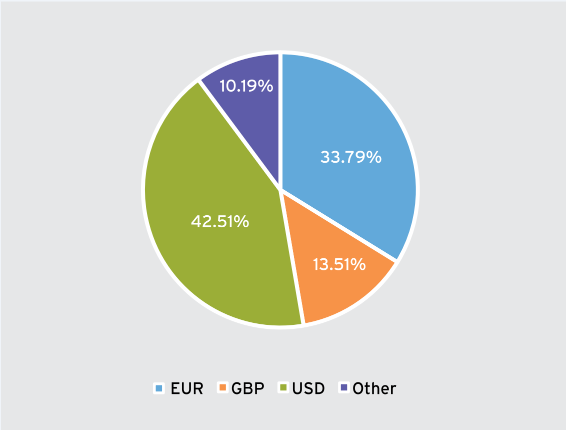
ECP (All Currencies)



Source: Euroclear

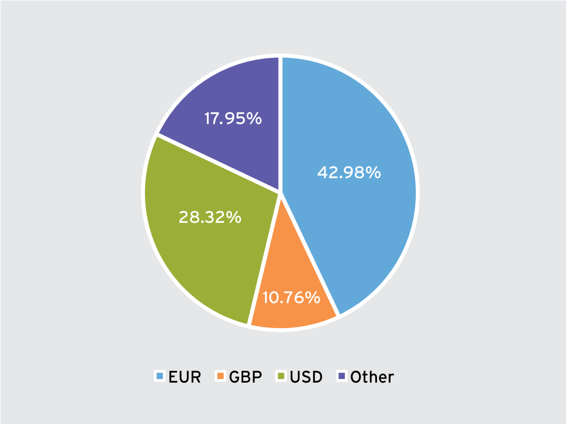
Considering the break-down of outstandings by currency, US$ issues represent the largest proportion by $ value, at 43%, albeit that their larger implied average issue size of $95 million means that US$ issues only represent 28% of the average number of outstanding issues. Euro issues represent the next largest proportion of the $ equivalent value outstanding, at 34%, with a much smaller implied average issue size of $50 million (equivalent) such that euro issues rather represent 43% of the average number of outstanding issues.

$ equivalent Outstanding: 2016 Average



Source: Euroclear

Number of Outstanding Issues: 2016 Average



Source: Euroclear

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Secondary Markets



by Andy Hill, Elizabeth Callaghan and Gabriel Callsen

IOSCO report on liquidity in the secondary corporate bond markets

On 7 March 2017, the International Organization of Securities Commissions (IOSCO) published its final report on the *Examination of the Secondary Corporate Bond Markets*.

This follows an initial consultation report published on 5 August 2016. IOSCO received 16 responses to the consultation report, including a detailed response from ICMA. IOSCO discusses and partially addresses a number of points raised in the consultation responses in its final report, including directly responding to a number of points made by ICMA. However, the conclusions of the final report remain resolutely consistent with those of the original consultation report:

"Based on the totality of information collected and analysed, IOSCO did not find substantial evidence showing that liquidity in the secondary corporate bond markets has deteriorated markedly from historic norms for non-crisis periods."

"While some of the relevant metrics (turnover ratio, dealer inventories, and block trade size) might indicate potential signs of lower liquidity, most metrics reviewed show mixed evidence of changes in liquidity (bifurcation of trading, average trade size, and average number of counterparties or market makers) or some evidence of improving liquidity (trading volume, bid-ask spreads, and price-impact measures)."

"Notwithstanding these findings, it should be noted that changing market structure, participant behavior, regulations and cyclical factors, such as low interest rates, have impacted the secondary corporate bond market. Yet this is a dynamic environment, where stakeholders and participants have demonstrated ability to change and adapt. For example, dealers have been observed shifting from a principal model to an agency model and increasing the use of electronic trading venues to trade fixed income products. There also appears to be a decoupling of the traditional relationship between dealer inventory and trading volume for the cash corporate bond market. Further, research suggests that alternative products, such as CDS, could alleviate trading frictions in cash markets improving overall liquidity conditions (in normal market conditions)."

ICMA welcomes IOSCO's focus on corporate bond markets, and will continue to engage with IOSCO on the issue of secondary market liquidity and functioning, particularly with a view to stressing the following findings of ICMA's ongoing work in this area:

- There are many corporate bond markets (eg differentiated by region, rating, and class), and they cannot be aggregated to provide a consolidated view of overall bond market liquidity: market liquidity should be assessed on an individual market basis.
- Different measures of liquidity warrant caution, particularly academic models (mainly derived from equity market studies) or arbitrary composite metrics.
- Data reliability and integrity also need to be carefully assessed (eg mixing data from different markets or asset classes, or using pre-trade data, which is not necessarily executable).
- What does not trade is in many ways a better indicator of liquidity than what does trade (ie looking at unfilled orders or time to execute).
- Quantitative analysis needs to be assessed in light of qualitative data (ie feedback based on the experience of market participants).
- Not all stakeholders experience the same levels of market liquidity, and there appears to be a growing bifurcation in liquidity levels between different investors, as well as corporate issuers.

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New ICMA credit market studies

ICMA, through its Secondary Market Practices Committee (SMPC), is actively involved in monitoring and discussing the liquidity conditions and evolution of the European corporate bond markets, and has published two key studies on the state and evolution of the European IG market, in 2014 and 2016.

ICMA has also been very focused on highlighting the inextricable link between the underlying bond markets and repo markets, as well as with related derivatives markets. It is now broadly recognized that any meaningful analysis of bond markets also requires a deep consideration of the related hedging and funding markets.

With this in mind, ICMA is undertaking two key new studies in the first half of 2017:

- *The state and evolution of the European credit repo market* – a joint initiative of both the SMPC and European Repo and Collateral Committee (ERCC).
- *The state and evolution of the European single-name credit default swaps (SN-CDS) market* – in cooperation with the International Swaps and Derivatives Association (ISDA).

As with previous studies, the studies will rely heavily on qualitative input from key market participants and stakeholders, including sell-side and buy-side firms, as well as other intermediaries and market infrastructure providers. As much as possible, the studies will also seek to utilize available market data.

As well as being of interest to both ICMA's and ISDA's constituents active in the European credit markets (including sell-side, buy-side, intermediaries, and infrastructure providers), the reports of the two studies should also be of interest to regulators and policy makers. In particular, they should be helpful in informing the work being undertaken by the European Commission's Expert Group on Corporate Bond Market Liquidity, of which ICMA is a member, and which is due to produce a final report with policy recommendations by September 2017.

Any members (or non-members) interested in participating in either of these studies should contact Andy Hill at ICMA. Meanwhile, more details on both studies can be found on the ICMA website, while the credit repo market study is also discussed in the Repo and Collateral Markets section of this Quarterly Report.

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Changes to the ICMA Buy-in Rules

On 1 March 2017, ICMA announced changes to the Secondary Market Rules and Recommendations with respect to the procedures for buy-ins and sell-outs. The changes to the rules came into effect on 3 April 2017.

In May 2016, in response to requests from ICMA's members, ICMA's Secondary Market Practices Committee (SMPC) proposed a review of the Buy-in and Sell-out Procedures with a view to improving their efficiency and practicability, particularly in light of more challenging market conditions. Following a lengthy consultation process with member firms, the ICMA Executive Committee, in close consultation and agreement with the SMPC, unanimously resolved to amend the Buy-in and Sell-out Procedures.

Most significantly, the revised rules remove the requirement to appoint a buy-in (or sell-out) agent, and provide for the party initiating a buy-in/sell-out to execute the procedure themselves (subject to certain limitations). The new rules also allow for greater flexibility for the initiating party in determining the timing of the execution of the buy-in/sell-out.

ICMA will continue to monitor closely the impacts of the revised procedures, and, where necessary, will consider further enhancements to improve the efficiency and effectiveness of the "Rules".

Further information on the changes and the consultation process can be found on the ICMA website. Alternatively, any questions related to the Secondary Market Rules and Recommendations can be directed to Andy Hill in ICMA's secondary market team, or to the ICMA Legal Helpdesk.

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MiFID II implementation: the Systematic Internaliser regime

by Elizabeth Brooks Callaghan

What is a Systematic Internaliser?

A Systematic Internaliser (SI) is an original MiFID term, used in equities in MiFID I (2007). It has an increased scope in MiFID II: an investment firm which, on an organised, frequent and systematic, and substantial basis, deals on its own account (principal trading) by executing client orders outside trading venues: Regulated Market (RM), Multilateral Trading Facility (MTF), or Organized Trading Facility (OTF). MiFID II will set out clearly defined thresholds for becoming an SI, based on trading volumes in respect of "frequent and systematic" and "substantial". Large global or regional banks are the most likely candidates to take part in the SI regime.

Why the Systematic Internaliser regime?

The purpose of the new expanded Systematic Internaliser regime (expanded to non-equities in MiFID II) is to capture over-the-counter (OTC) trading activity, increase transparency and ensure that the internalisation of order flow by investment firms does not undermine the efficiency of price formation on trading venues. The perception is that in MiFID I bond trading frequently experienced a "natural arbitrage" (pre-trade transparency could be circumvented by trading off-venue). The idea in MiFID II is to bring about transparency in bond trading by creating transparency obligations on a quote-by-quote basis. – bringing light into the previously un-lit OTC trading practice.

What is a Systematic Internaliser obligated to do?

SI obligations are different for liquid and illiquid/large-in-scale trades. In the case of liquid bonds, SIs must make public firm quotes (pre-trade transparency) to all their clients when (a) they are requested for a quote by a client, or (b) they agree to provide a quote. There is flexibility within pre-trade transparency, however; SIs can limit the number of transactions a client may enter into, and the clients to whom the quotes are provided, so long as its commercial policy is set in a non-discriminatory way (eg a policy of "one transaction per quote").

The mechanism for a bank making OTC/SI quotes public is through arrangements with a trading venue or an Approved Publication Arrangement (APA), or through proprietary arrangements (ie on its own website). Where a bank that is an SI is using more than one arrangement, the publication of quotes must occur simultaneously.

There are also post-trade obligations for SI trading activities. In an OTC transaction involving an SI (including where the SI is the buyer), the SI is responsible for post-trade reporting. To ensure the transaction is only reported once, the SI is required to inform the other party that it is reporting on the other party's behalf.

Regarding illiquid or large-in-scale trades, waivers are in place for both pre- and post-trade transparency. This is not only the case for SIs but for trading venues as well.

It is important to note that the obligation for pre-trade and post-trade transparency for OTC trading is a complete change compared with OTC trading practices today. In Europe today, there is no transparency for OTC trading in either the pre-trade or the post-trade space.

What are the practicalities of implementing the Systematic Internaliser regime?

The practicalities of implementing this SI regime are proving a challenge. For the Systematic Internaliser regime to function, a buy side (asset or fund manager) will need to see which bank is an SI for which individual bond. Ideally, there should be a central source of who is and who is not an SI, per bond and per legal entity. The logical consolidated "golden" source for this information should be within the European Securities and Markets

Authority (ESMA). However, ESMA has refused to produce this centralized database of information. Instead, it will be up to the industry. APAs, where most of the pre-trade quotes and post-trade reports are sent, are attempting to develop industry solutions. Unfortunately, there are several APAs across Europe. This will fragment this SI identification data and will most likely cause early growing pains for the new SI regime in bonds. The SI regime comes into force in September 2018 (eight months after the MiFID II effective date).

What are the pros and cons of a bank becoming an SI?

Banks are required to measure their OTC trading activity for SI thresholds and trading volumes that cause them to qualify as an SI. Some banks will monitor their activity to make sure they are not an SI, while other banks will opt in as an SI. Banks can opt in for the SI regime as early as 3 January 2018. So, what are the pros and cons of a bank opting in for the SI regime?

Pros

- The SI regime assists Tier 1 and Tier 2 buy sides with post-trade reporting obligation (the SI always has the obligation to report, regardless a buyer or a seller – in effect delegated reporting).
- The SI regime is a good marketing tool. The buy-side will know who is a specialist in a specific bond.
  - If you want to be known as a specialist in a particular bond but trade across several legal entities, the SI calibrations will be fragmented. Therefore, the bank will not qualify as an SI. Instead, the bank can opt in to the SI regime.
  - At the beginning of MiFID II, a smaller number of trades are expected to meet threshold requirements for real-time reporting. Opting in for liquid bonds is likely for banks as it is not too risky and provides clients with a useful quoting regime.

Cons

- SI quotes must compete with non-SI quotes for buy-side best execution purposes. This may be written in buy-side best execution policies. Banks may go to a lot of effort and expense for little reward.
- Identification and scope are not clear. Fragmented identification of bonds (mentioned earlier), and the fact that the product scope is not clear (ESMA has yet to provide guidance), will prove a challenge. It is not yet known if non-European instruments such as US Treasuries or Japanese Government bonds are in scope, for example.
- Owing to the fragmented APA market structure, a bank may end up as the only SI for a bond on an APA. Most buy sides use OTC for larger less liquid or large block trades, where a bilateral discussion is needed. This could create information leakage as to which buy sides are trading what (based on holdings data) through reverse engineering. This is because a "SINT" label identifies an SI trade. ("SINT" is a four-letter market identifier code in post-trade transparency indicating an SI transaction.)
- If a bank opts in before September 2018, it will have to do so for *all* bonds. Otherwise, it cannot truly help the Tier 2 and Tier 3 buy sides and prevent them from the need and expense to report.
- It is the buy side's responsibility to identify SIs. It is not clear how buy sides will be notified by the sell side. SI notification will be particularly challenging for voice and instant message trades.

Once a firm is an SI, what are the key differences between Trading Venues, SIs and OTC?

	Trading Venue Obligation	SI Obligation	OTC/ Non-SI Obligation
Pre-trade Transparency applies	✓ (non-firm)	✓(firm)	×
Post-trade Transparency applies	✓	✓	✓
Best Execution Data provided	✓	✓	✓
Reference Data provided	✓	✓	×
Post-trade Reporting obligation	✓	✓	Only if selling

What is the way forward for the Systematic Internaliser regime?

The SI regime – and the concept of bringing transparency to the over-the-counter market in bond trading – is one of the most complicated and nuanced MiFID II rules. It remains to be seen how successful this regime will be. There is a view that it will most likely be used for bonds where banks are specialists or primary dealers. However, beyond that it is unknown how the regime will roll out. In equities in 2007, when the SI regime was first introduced, only nine banks became SIs and very few trades took place on the back of an SI quote. This is one to watch as there is much interest in this regime in the bond market from both the buy side and the sell side, as well as from the regulators.

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CSDR settlement discipline *by Andy Hill*

CSDR cash penalties for settlement fails

On 10 March 2017, a package of regulatory technical standards (RTS) for the Central Securities Depository Regulation (CSDR) was published in the *Official Journal* of the EU. This included the RTS for the parameters for the calculation of cash penalties for settlement fails and the operations of CSDs in host Member States.

The regulatory initiative is a key component of the CSDR's framework for settlement discipline, as outlined in Article 7 of the 2014 CSDR, alongside the requirement for CSDs and CCPs to monitor and report participants that consistently systematically fail transactions ("name and shame"), and a mandatory buy-in regime. The objective of the cash penalties regime is to create a standardized, harmonized penalty regime across the EU to be applied in the event of settlement fails.

Of note, the RTS for the highly controversial mandatory buy-in regime are still awaiting approval by the Commission and the co-legislators, and are unlikely to be published in the *Official Journal* before June 2017. The full CSDR settlement discipline package (including cash penalties and mandatory buy-ins) is expected to be implemented no earlier than June 2019.

Why a penalty regime? (The economics of failing)

In a normal interest rate environment, from the seller's perspective, failing to settle a cash-settled (delivery-versus-payment) transaction comes at a cost. Where the seller is at fault, failing to deliver securities means that the seller must fund the securities for the duration of the fail, despite not receiving the economic benefits of ownership of the security.[44] Conversely, the failed-to purchaser enjoys an economic gain from being failed to, since the purchaser receives the economic benefits of ownership of the security, while not having to fund the security for the duration of the fail. The cost of failing is therefore directly related to the prevailing money market rates: the higher short-term interest rates, the greater the cost of failing. This cost is effectively the same for all cash-settled securities, regardless of security type or asset class.

Since failing to deliver securities against a sale results in a cost to the seller (and a benefit for the purchaser), there is a natural economic incentive to make good on any settlement (whether through operational diligence or utilizing the repo or securities lending markets). However, since the cost of failing is directly related to prevailing funding rates, in a low interest rate environment, the incentive to settle is weakened: to the point where in a zero-rate environment, economically at least, the seller could be indifferent to settlement fails. In a negative interest rate environment, theoretically, the seller could actually profit from failing to settle its trades.[45]

It is in these low-to-negative rate environments, when the natural disincentives to failing are diminished, that a "penalty" regime can potentially replace market forces to ensure that the right economic incentives and disincentives are in place to maintain high levels of settlement efficiency. This was the motivation behind the Treasury Market Practices Group (TMPG) Fails Charge for US Treasuries that was introduced in 2009.

The TMPG Fails Charge is a market-led initiative that was introduced in response to the very low rate environment in the US, which seemed to precipitate a decrease in settlement efficiency in the US Treasury market. The mechanism applies an effective 3% (300 basis points) cost to the failing seller for the duration of the fail. In fact, the penalty charge is "3% less the prevailing Fed Funds rate", which also reflects the natural economic cost of failing. Thus, as market rates move higher, the penalty charge reduces, and with Fed Funds at 3%, the charge becomes zero. Importantly, the charge is paid directly by the failing party to the failed-to party.

Empirical evidence suggests that the introduction of the TMPG Fails Charge not only led to an improvement in settlement efficiency rates for US Treasuries, but it also had a positive impact on repo market liquidity, as demand to borrow Treasuries, even at relatively expensive levels, increased.

44. Where the purchaser is at fault for the fail, the failed-to seller can usually make an 'interest claim' against the failing party for the cost of having to fund the securities for the duration of the fail (eg Rule 405 of the ICMA Secondary Market Rules & Recommendations).

45. In 2015, ICMA introduced Rule 407 to its SMR&Rs to allow the failed-to purchaser to make interest claims against the failing seller in such circumstance, to ensure that the "positive" incentive to failing was removed.

The CSDR penalty framework

The CSDR penalty mechanism works on a similar principle. However, it is administered at the CSD level, with EU (I)CSDs penalizing failing participants and then passing this on to the failed-to participant. The charges themselves are flat, *ad valorem* fees (expressed as a % of the market value of the relevant security), rather than a money market equivalent rate, and are independent of prevailing money market rates or any benchmark rate. The charges are applied on a daily basis (per business day, rather than calendar day), and there are different charges depending on security type/asset class, and (in the case of shares) liquidity (as determined by MiFID II).

The penalty rates to be charged are outlined below, along with the approximate "repo rate equivalent cost".

Type of fail/ security	Penalty Rate	Equivalent repo rate cost
Liquid shares	1.00 bp	2.50%
Illiquid shares	0.50 bp	1.25%
SME growth instruments (non-debt)	0.25 bp	0.625%
SSA bonds	0.10 bp	0.25%
Non-SSA bonds	0.20 bp	0.50%
SME debt instruments	0.15 bp	0.375%
All other financial instruments	0.50 bp	1.25%
Fail due to lack of cash	Official overnight rate	Official overnight rate (≥0%)

To ensure consistency in the charges being made (and credited) by various CSDs, single reference prices will be used for each individual security, for each day, when calculating the penalty. The regulation provides that "the establishment of reference prices should be based on objective and reliable data and methodologies". In the case of instruments admitted to trading on a trading venue within the EU, this will be the closing price of the most relevant market in terms of liquidity, or the closing price on the venue with the highest turnover. For other financial instruments, the value is to be determined on the basis of a predetermined methodology approved by the competent authority of the relevant CSD.

In determining the appropriate penalty rates, ESMA considered a balance between an effective deterrent to failing and minimizing negative impacts on the orderly and smooth functioning of markets. In doing so, they attempted to take into account the liquidity and transaction sizes of different instruments, as well as the typical repo or securities lending rates for those markets.

Timeline for implementation

The Regulation enters into force on the twentieth day after publication in the *Official Journal,* but a two-year delay to application is provided to allow CSDs sufficient time to undertake the extensive technology builds required to support the implementation of the regime. Furthermore, it is intended to be implemented at the same time as the other elements of Article 7, including mandatory buy-ins, which means that the earliest the penalty regime will be applied is June 2019.

In this context, it is also worth noting that Target2-Securities (T2S) has established a CSDR Task Force, which is assessing ways to develop a centralized solution for cash penalties in T2S. However, firms will also need to develop their own internal operational solutions to ensure that the penalties and compensation charged and paid by the respective CSDs to the firm (likely to be as a net charge or payment on a monthly basis) can be attributed to the relevant internal business unit and trading book with respect to each underlying fail.

Potential impacts for the fixed income market

Feedback from the ICMA membership suggests that a standardized and harmonized cash penalty regime for settlement fails is, in principle, a broadly welcomed regulatory initiative, particularly in a low-to-negative interest rate environment. However, the general reaction has been that the penalty rates, with respect to fixed income, are too low to make any meaningful impact on settlement efficiency (citing the TMPG Fails Charge of 3%). Certainly, the CSDR penalty rates would appear to be significantly lower than the current "specials" repo rates observed in the European sovereign and corporate bond markets. However, this also needs to be viewed in light of already relatively high settlement efficiency rates across the European bond markets, despite negative euro-area interest rates, and where most fails seem to be attributed either to structural issues (such as CSD interoperability) or to reduced liquidity in the repo and securities lending markets.

From an overall market liquidity perspective, the very low penalty charges are again unlikely to make much impact, and pale into insignificance when compared to the expected market impacts of the parallel mandatory buy-in regime. A common recommendation from ICMA's membership is that a more dynamic and appropriately calibrated penalty regime would be far more effective in terms of supporting settlement efficiency, while negating the need for a *mandatory* buy-in regime and the negative consequences of that for bond market liquidity.

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ICMA Secondary Market Practices Committee

The ICMA Secondary Market Practices Committee is an open forum for sell-side and buy-side member firms active in the European investment grade corporate bond secondary market. Through open dialogue and engagement, as well as through its subsidiary working groups and work-streams, it seeks to be the representative body of the European corporate bond secondary market: addressing practical issues directly relevant to market practitioners; standardising market best practice; disseminating relevant market information; and promoting the best interests of an efficient and liquid market.

At the most recent meeting of the SMPC, on 25 January 2017, the following topics were featured and discussed:

- A presentation by Omar Ghalloudi (Head of Investment Grade European single-name credit trading at Citigroup) on the sell-side perspective of the impacts of the ECB's Corporate Sector Purchase Programme on market liquidity.
- A presentation by Yann Couellan (Head of Fixed Income, Money Market and Repo Trading France for AXA IM) on the recent study by AXA IM, *Fixed Income Liquidity: A Look Back at Our Historical Trading Data*, which highlights how changing behaviour and data management are becoming key for buy-side firms in sourcing bond market liquidity.
- An update on the work being undertaken by the European Commission's Expert Group on Corporate Bond Market Liquidity.
- Details on the upcoming ICMA MiFID II workshops for both the Systematic Internaliser regime and Best Execution reporting requirements.
- ICMA's response to ESMA's consultation paper on its draft regulatory technical standards for consolidated tape providers for non-equity instruments.
- The pending changes to the buy-in and sell-out procedures under the ICMA Secondary Market Rules and Recommendations.
- The key priorities for the SMPC and ICMA's secondary market work for 2017.

The next meeting of the SMPC will take place in London on 2 May 2017, and all ICMA members active in the European credit markets, both sell-side and buy-side, are very welcome to participate. Please contact Andy Hill at ICMA for further details and to register your interest to attend.

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ETP Mapping Directory

The electronification of the trading market structure for fixed income markets is rapidly evolving and expanding. Initially published in 2015, ICMA conducted a mapping exercise of electronic trading platforms (ETPs) and information networks. The aim is to understand better the scope, functionality, and unique selling points of each venue. The ETP Mapping Directory is updated on a regular basis and provides a single source of information on currently over 30 infrastructure providers. Key information includes trading protocols, product coverage, price discovery mechanisms and regulatory classification under MiFID II. The latest version is available on the ICMA website.

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Repo and Collateral Markets

by David Hiscock and Alexander Westphal

MiFID II implementation: repo markets

In a letter to the European Commission, dated 31 January 2017, the ICMA ERCC urgently requested clarification regarding MiFID II best execution obligations and the extent to which SFTs are in or out of scope of the reporting requirements outlined in RTS 27 and 28 of the Directive.

Having considered this carefully, the ICMA ERCC has concluded that logically best execution reporting obligations under RTS 27 are not intended to apply to SFTs, yet in the absence of official clarity on this issue there is growing confusion – both with respect to whether SFTs are in scope or not, and, in the event that they in fact are, as to how they are intended to be reported.

The urgent need for clarity is driven by the fact that in the event that SFTs are deemed to be in scope of MiFID II best execution (in particular regarding RTS 27) the market requires: (i) comprehensive technical guidance from the authorities on how SFTs should then be reported in a consistent and meaningful way; and (ii) to make significant, time consuming investment into technological build, in order to comply with such regulatory obligations with respect to SFTs.

The letter explains why, based on several factors, it is the firm view of the ICMA ERCC that RTS 27 (which outlines reporting requirements for execution venues executing client orders in MiFID financial instruments) ought not to be intended to apply to SFTs. To assist in the assessment of the ICMA ERCC's requests, the practicalities (and impracticalities) of trying to apply RTS 27 (and RTS 28) to SFTs are outlined in a discussion paper and presentation accompanying the letter.

With respect to RTS 28 (which outlines the reporting requirements for investment firms executing client orders on execution venues), the regulation does clarify that SFTs are to be reported, and also provides a separate reporting template for this purpose. However, the ICMA ERCC questions the value of this data with respect to clients assessing best execution. Since it appears that this will provide very little value and thus appears to be a disproportionate burden, the ICMA ERCC has requested that RTS 28 also should not apply to SFTs.

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Net Stable Funding Ratio (NSFR)

On 24 February 2017, the BCBS issued a second set of frequently asked questions (FAQs) and answers on Basel III's NSFR. Compared to the set of NSFR FAQs previously issued, in July 2016, this new set of FAQs includes one additional item in the "Repo/secured lending" section on page 2, which is designated as item 5.1. The newly answered questions are:

"How should reverse repo and secured funding transactions be treated in the NSFR?

a. What is the applicable RSF factor for the amount receivable by a bank under a reverse repo transaction?

b. What is the treatment for the collateral received?

c. How should the encumbrance treatment as specified in paragraph 31 of the NSFR framework be applied to secured lending (eg reverse repo) transactions where the collateral received does not appear on the bank's balance sheet, and it has been rehypothecated or sold thereby creating a short position?

d. How should the encumbrance treatment specified in paragraph 31 of the NSFR framework be applied to secured lending (eg reverse repo) transactions where the collateral appears on the bank's balance sheet, and it has been rehypothecated or sold, thereby creating a short position?"

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Haircuts

On 16 February 2017, the European Systemic Risk Board (ESRB) published a report entitled *Margins and Haircuts as Macroprudential Tools*, which considers the use of margins and haircuts to meet macroprudential objectives. It (i) explains the need for macroprudential policies to mitigate systemic risk from excessive leverage and procyclicality in collateral requirements; (ii) sets out how margins and haircuts could, in principle, be used as macroprudential tools; (iii) identifies and sketches out a number of potential tools; and (iv) highlights practical challenges in the implementation of such tools that require further work.

Potential macroprudential tools that target margin and haircut requirements vary in terms of their costs and benefits. Tools the report considers include (i) fixed numerical floors for initial margins and haircuts, which would introduce absolute minimum requirements; (ii) time-varying floors on initial margins and haircuts, which would allow macroprudential authorities to steer haircut and margin levels in a counter-cyclical manner; (iii) macroprudential margin add-ons, which could be an alternative approach to fixed numerical or time-varying margin floors; (iv) macroprudential collateral pool buffers, as another alternative approach to fixed numerical or time-varying margin floors; (v) margin and haircut ceilings, which are an *ex ante* cap on the maximum acceptable margin and haircut levels (inclusive of any add-ons); and (vi) speed limits on margin and haircut increases, which would result in a ceiling being imposed on increases in margins or haircuts over a given time period.

The report's concluding section notes that leverage cycles and procyclical behaviour are complex phenomena, where the related financial stability risks have to be further analysed and cannot be addressed with a single tool. Challenges include that (i) the tools considered may have side effects and their application comes at a cost; (ii) the calibration of tools is hampered by data gaps and the transitioning to a new regulatory framework; (iii) derivatives and SFT markets are porous – there is a high degree of complementarity and scope for substitution between eligible collateral across products and asset classes; and (iv) there is an open question regarding the authority/(ies) that should be called upon to trigger a specific tool. Against this backdrop, further empirical and conceptual analysis is considered to be needed. A programme for future work in this area could close the knowledge gaps identified in this report and contribute to the reviews of existing regulation.

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Collateral reuse

On 25 January 2017, the FSB published two new reports:

1. *Rehypothecation and Collateral Reuse: Potential Financial Stability Issues, Market Evolution and Regulatory Approaches:* This describes potential financial stability issues associated with, and explains the evolution of market practices and current regulatory approaches relating to, rehypothecation of client assets and collateral reuse (for the purposes of this report, rehypothecation is defined narrowly as "any use of client assets by a financial intermediary" (eg broker-dealers); whilst, in contrast, collateral reuse is not limited to client assets and broadly includes "any use of assets delivered as collateral in a transaction by an intermediary or collateral taker"). The report goes on to examine the possible arguments for and challenges of harmonising regulatory approaches to rehypothecation of client assets, concluding that there is no immediate need to do so, and also describes possible residual financial stability risks associated with collateral reuse.

2. *Non-Cash Collateral Reuse: Measure and Metrics:* This incorporates input from the early-2016 consultation and finalises the measure and metrics of non-cash collateral re-use in SFTs that authorities will monitor for financial stability purposes. The FSB will collect from FSB members national aggregated data related to the measure and metrics from January 2020 (with the scope, measure and metrics of collateral reuse to be reviewed five years thereafter) as part of its global securities financing data standards.

As described in the second of these reports, the FSB has concluded that collateral reuse should be reported based on what they term "the approximate measure" and that the scope will for now be in respect of SFTs only – in the EU the SFTR is already being specified with these FSB conclusions in mind and the data required by authorities to report to the FSB should be derived from the EU SFTR data provided by firms.

The approximate measure of collateral reuse by individual entities is calculated using data on total own assets, collateral received that is eligible for reuse, and collateral posted. For a given collateral type j, collateral reused by reporting entity i will be estimated as:

$$collateral_{ij}^{reused} = \left(\frac{collateral_{ij}^{received,\ eligible\_for\_reuse}}{collateral_{ij}^{received,\ eligible\_for\_reuse} + assets_{ij}^{own}} \right) x \left(collateral_{ij}^{posted} \right)$$

where "collateral$_{ij}$ received, eligible_for_reuse" represents the market value of collateral of type j received by entity i that is eligible for reuse, "assets$_{ij}$ own" represents assets of the same type j owned by entity i, and "collateral$_{ij}$ posted" stands for posted collateral by entity i, again of type j. This approximate measure implicitly assumes that the probability of a security being posted as collateral is independent of whether the collateral comes from an entity's own assets or from another collateralised transaction.

The collateral reuse metrics which the FSB plans to generate with this reuse data are: (i) collateral reuse at the jurisdiction and global level; (ii) collateral reuse rate; (iii) share of reused collateral; (iv) concentration of reuse activities; (v) collateral circulation length; and (vi) collateral multiplier (at the global level only). The intention is that this will support authorities' identification of financial stability risks arising from the reuse of collateral (eg interconnectedness, leverage and procyclicality) and inform any policy responses to addressing these risks.

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CCP recovery and resolution: repo markets

The European Commission's, 28 November 2016, legislative proposal on CCP recovery and resolution describes a range of tools which it may be necessary to include in the EU's legislative regime. Included among these is "variation margin haircutting" (VMH).

Specifically, in the second paragraph of section "4.2.3. Preparation – recovery plans", the proposal states that VMH involves "haircutting payments due to clearing participants as a result of an economic gain in a derivatives contract", in order to provide additional resources. And, in the third paragraph of section "4.2.7. Resolution tools and powers", the proposal states that resolution could, among other things, take the shape of "further haircuts of outgoing variation margin payments" – which Recital 52 then also reflects.

Resolution powers are the subject of Chapter IV of the proposed Regulation, with Article 48 proposing the applicable "General powers". Article 48.1 states that "The resolution authority shall have all the powers necessary to use the resolution tools effectively, including all the following powers", which are then laid out in a list from (a) to (r). Within this list VMH is covered by item (n), which is proposed as being "the power to reduce, including to reduce to zero, the amount of variation margin due to a clearing participant of a CCP under resolution".

The concept underlying VMH is that it enables the CCP to reduce ("haircut"), *pro rata* across clearing members, the variation margin payments that it is due to make to those members whose positions have increased in value since the CCP's default. Meanwhile, members whose positions have decreased in value must continue to pay their required variation margin amounts in full. Whilst recognising the potential value to resolution authorities of their having the power to require VMH, the ICMA ERCC is concerned to ensure that the applicable power (assuming broader debate does indeed conclude that it should exist) is clearly framed in such a way that it respects important differences between asset classes.

In the context of cash-settled derivative contracts, variation margin relates to profit (or loss) on the contracts. Use of VMH in such a case would create a situation in which some portion of the profit made is foregone by the clearing member whose margin is haircut. But, in the case of repos variation margin is not related to profit (or loss) on the contracts, rather representing incremental amounts of collateral required to adjust for fluctuations in the value of the principal amount of collateral previously transferred (a similar situation also exists in case of other physically settled cleared products, such as equities). This difference is highly significant, since it means that, rather than VMH giving rise to a less profitable derivatives contract, a repo counterparty being subjected to VMH would thereby face a loss of principal.

This important distinction already appears to be recognised in section 4.2.3 of the European Commission's legislative proposal, since this very specifically refers to "haircutting payments due to clearing participants *as a result of an economic gain in a derivatives contract*" (italics added for emphasis). The ICMA ERCC is exploring whether the concept underlying this critical point of detail can be suitably carried over into the proposal's text in Recital 52 and Article 48.1(n).

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CSD Regulation: repo markets

As described in more detail in the Secondary Markets section of this ICMA Quarterly Report, the RTS for cash penalties for late settlement under CSDR was published in the European Commission *Official Journal* on 10 March. Based on ongoing discussion and consultation with our members, particularly those active in the cash and repo/lending markets, the general view is that a standardized, harmonized penalty system for fails, implemented by the CSDs, has the potential to improve settlement efficiency, while also supporting repo market, and hence cash market, efficiency and liquidity. Meanwhile, it remains clear that the projected mandatory buy-in regime will pose a substantive threat to both bond and repo market functioning and liquidity, particularly for credit and less liquid segments of the fixed income market.

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From an operational perspective, the EU SFT Regulation (SFTR) is currently clearly the biggest challenge ahead for the repo market.

SFT Regulation

From an operational perspective, the EU SFT Regulation (SFTR) is currently clearly the biggest challenge ahead for the repo market. The law itself entered into force in early 2016, but the regulatory technical standards (RTS) which will include the details on the extensive reporting rules that the SFTR will introduce are currently still being finalised. Following two public consultations, on 31 March 2017, ESMA submitted the final draft RTS to the Commission for review. Once these are adopted, probably in the fourth quarter of 2017, banks and other investment firms will have exactly one year to prepare until the reporting goes live. This can thus currently be expected in the fourth quarter of 2018.

Given the scale of the challenge, this is a very short timeframe for the industry. It is thus important for firms to shift their focus onto the practical steps required to prepare for implementation, including ensuring that sufficient resources are available for the substantial system and IT developments that will be necessary. What is also clear is that implementation can only be successful if there is close collaboration across the entire industry. This includes not only the relevant market participants, but also trade repositories (TRs) and third party vendors, which are both expected to play a critical role in the process. In particular, it is hoped that the vendors will play an active role in helping firms to capture and derive the 70-odd data fields that the SFTR will require to be reported for each repo trade.

It is important to keep in mind that the reporting rules are not limited to the large banks but will indeed cover all market participants, including smaller players from both the sell and buy side. For the latter in particular, third party solutions that help to automate the process of completing the reports, based on static data sources, are expected to play an important role. Some such solutions are starting to emerge and coalitions to form. Whether these can be translated into viable products that can be delivered in time for the SFTR "go-live" remains to be seen. Close collaboration between industry, vendors and TRs will certainly be a critical success factor.

In order to kick off this collaborative effort, on 8 February 2017 the ICMA ERCC held a first cross-industry event to discuss key challenges and potential solutions for SFTR reporting. The meeting was organised jointly with the International Securities Lending Association (ISLA). Over 200 delegates attended the event, representing market participants, vendors and market infrastructures, which all contributed to a lively and constructive discussion. The event centred around two panel discussions. A first panel composed of market participants highlighted some of the key SFTR challenges and problem statements. Following up on this discussion, a second panel composed of vendors and TRs then focused on the potential solutions and the evolving operating model for SFTR reporting. The SFTR challenge also featured prominently at the latest Annual General Meeting of the ICMA ERCC, which was held on 20 March in Zurich. Of course, these are only the first steps in a long process and more needs to follow. Now that the final draft RTS have been published, and the final rules are becoming clearer, the ERCC's SFTR Task Force will reconvene shortly to launch the next stage of the discussion.

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ICMA's European credit repo market study

As part of its ongoing work related to both corporate bond market liquidity and evolution, as well as repo market functioning and efficiency, ICMA is currently undertaking a study into the state and evolution of the European credit repo market. Accordingly, this study is a joint initiative between the European Repo and Collateral Council (ERCC) and the Secondary Market Practices Committee (SMPC). As with previous, similar studies, it will rely heavily on qualitative input from key market participants and stakeholders, including sell-side and buy-side firms, as well as other intermediaries, securities lenders, and infrastructure providers.

The study is intended to complement ICMA's ongoing work related to both corporate bond market and repo market liquidity and functioning. It is further designed to help inform the work being undertaken by the European Commission's Expert Group on Corporate Bond Market Liquidity, of which ICMA is a member, and which is due to produce a final report with policy recommendations by September 2017.

Publication of the final report is projected for May 2017. Further details can be found both on the ICMA website and in the Secondary Market section of this Quarterly Report. Anybody wishing to participate in the study should contact Andy Hill at ICMA.

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Global Master Repurchase Agreement (GMRA)

Legal opinion publication

ICMA obtains and annually updates legal opinions on the GMRA from numerous jurisdictions worldwide. ICMA will shortly publish the 2017 update opinions to the legal opinions on the GMRA 1995, 2000 and 2011 versions, as well as the 1995 version as amended by the Amendment Agreement to the 1995 version and the 1995 and 2000 versions as amended by the 2011 ICMA GMRA Protocol on the ICMA website**.**

Legal opinion coverage

The GMRA remains the foremost agreement for documenting cross-border repo transactions. It has been fostered by ICMA for over 20 years, in which time the agreement has been amended and refined in consultation with the market. Such refinements have been made in response to changing market conditions, regulatory requirements and market demands. As such, the GMRA 2011 represents the most recent level of development, reflecting the most up-to-date ideas and methods. It is important that efforts to make repo documentation even more robust are supported by the market participants who have helped to develop it. In this regard future discontinuation of coverage of the GMRA 1995 in the legal opinions should focus the market on updating old documentation. ICMA has maintained coverage of the GMRA 1995 in the 2016 opinions and will do so in the 2017 update. However, the market should start to prepare now for the likely discontinuation of coverage of the GMRA 95 in the future.

Updating documentation: GMRA 2011 Protocol

ICMA published the GMRA 2011 Protocol to enable the parties to a GMRA 95 or 2000 to amend the terms of each such Agreement to, *inter alia*, reflect improved default related provisions of the GMRA 2011, and to enable the parties to a 95, a 2000 or a 2011 GMRA to insert a definition of "euro" in each such Agreement. In particular, the Protocol allows parties to conform certain provisions of existing agreements with the provision of the GMRA 2011, eg

- the methodology in calling an event of default; and
- the procedure for closing out transactions and determining the amount payable by one party to the other party.

The Protocol also allows parties to introduce a contractual set off clause in line with that of the GMRA 2011.

Signing up to the Protocol is an extremely efficient method of updating out-of-date documentation. A party to an existing GMRA may adhere to the Protocol and be bound by its terms by completing a letter in the form published by ICMA and sending it to our Zurich office.

In view of the future change to the opinion coverage, it is increasingly important that the market considers adhering to the Protocol. Its success directly correlates with the level of market adherence. Should members have any questions about using the Protocol, please come and speak to Lisa Cleary at ICMA about these.

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ICMA repo market surveys

32nd ICMA survey of the European repo market

The 32nd semi-annual survey of the European repo market calculated the amount of repo business outstanding on 7 December 2016 from the returns of 65 offices of 62 financial groups, setting the baseline figure for market size at €5,656 billion**.**

Using a consistent sample of banks that have contributed to the last three surveys, the market showed 0.8% year on year growth and 2.4% growth from the June 2016 survey. The size of the repo market remains static, with some seasonal fluctuations. Negligible real growth in the repo market, the mechanism by which collateral is moved around the financial system, at a time when demand for collateral is increasing, is indicative of a market under stress.

The next survey will take place in June 2017. All firms transacting repo business in Europe are invited to submit a return and will receive a confidential ranking.

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Pilot survey of the Asian repo market

ICMA's European Repo and Collateral Council (ERCC) and ASIFMA's Secured Funding Committee have been cooperating to extend the ICMA's well-established semi-annual survey of the European repo market to Asian repo. Asian repo has been defined, for the purposes of the survey, as repos (1) involving at least one party dealing in a location in Asia in any currency or against any collateral or (2) between parties located anywhere but in an Asian currency or against collateral issued in Asia).

Phase One of the joint initiative was to increase the granularity of the ICMA's existing European survey specifically to measure business by repo desks located in Europe with counterparties located in Asia, in Asian currencies or against Asian collateral. Phase One was launched in the survey on 8 June 2016.

Phase Two was to launch a survey of the repo desks of global banks located in Asia using a questionnaire based as closely as possible on the questionnaire for the existing European survey. The Asian questionnaire was sent out, alongside the external European questionnaire, for completion on 7 December 2016. It is hoped to expand the sample for the next survey, which will be on 7 June 2017.

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Asset Management

by Patrik Karlsson and Bogdan Pop

MiFID II implementation: research unbundling

The MiFID II legislation (including implementing delegated acts) defines research as an inducement and therefore cannot be paid for by using client money. The European Commission has confirmed that any asset manager receiving research will be forced to pay for it on its own account, or through a Research Payment Account (a pooled client money account). Firms will be required to explain in detail how clients will be charged for research and how frequently, and at no point can they exceed a defined research budget agreed with a client each year.

"Minor non-monetary benefits" are allowed, which include "short-term market commentary on the latest economic statistics or company results" or "information on upcoming releases or events".

The Commission also appears to have paved the way for the continued use of commission sharing arrangements (in equities). When referring to the use of RPAs, the draft acts state that "every operational arrangement for the collection of the client research charge, where it is not collected separately but alongside a transaction commission, has to indicate a separately identifiable research charge". It is understood that this effectively allows the use of commission sharing arrangements, provided they meet the conditions of an RPA.

This issue remains a concern among members as investors try to figure out the best way of adapting to the new rules in MiFID II and their implementation in various Member States. ESMA is reportedly developing Level 3 guidance to help Member States and firms implement the rules. Recent consultation papers have shown some divergence in how the FCA and the AMF are intending to implement the framework nationally.

Given the continuing importance of this topic to ICMA Asset Management and Investors Council (AMIC) members, it will be raised as a topic at the AMIC Executive Committee. Most recently, at the 1 March 2017 meeting, the Executive Committee asked the AMIC Secretariat to start developing a survey for members on their intentions about how they are implementing research unbundling.

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CCP recovery and resolution: buy-side concerns

The European Commission proposed a *European Framework for the Recovery and Resolution of Central Counterparties* (CCPs) on 28 November 2016, following its public consultation on the need for such a framework in October 2012.

According to this framework, CCPs are required to prepare recovery plans to overcome any form of financial distress which would exceed their default management resources. CCPs are free to determine the appropriate range of recovery tools as long as these are in line with existing

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This issue remains a concern among members as investors try to figure out the best way of adapting to the new rules in MiFID II.

CPMI-IOSCO international guidance. Recovery plans are to be reviewed by the relevant competent authority.

Resolution authorities are also required to prepare resolution plans for how CCPs would be restructured and their critical functions kept alive in the event of their failure. The plans should outline the resolution powers and tools which authorities would employ in case a CCP meets the conditions for resolution.

AMIC members have raised concerns about one of the tools allowed: variation margin gains haircutting (VMH), currently included in the CPMI-IOSCO guidance. This specific loss allocation tool would effectively allow the CCP to require end-users to pay for the CCP to stay in business, after it had failed at the role it was designed to carry out – managing counterparty credit risk.

In addition, allowing VMH in the recovery phase can have destabilising effects on markets in periods of stress. As investors are aware of the possibility that margin haircutting is a viable possibility, they are more likely in periods of great market stress to close out positions rapidly.

AMIC is coordinating with other trade associations in order to address this buy-side concern. The AMIC Secretariat is developing a position paper to reflect members' concerns.

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Covered bond harmonisation

The European Commission is currently considering potential changes to the European covered bond framework.

The European Banking Authority (EBA) issued a report on 20 December 2016 in which it proposes a three-step approach to covered bond harmonisation in Europe. The proposed approach builds on the strengths of the existing national frameworks, but allows better protection of the "covered bond brand" by ensuring more consistency in definition and regulatory treatment of covered bond products throughout the EU, so that only those financial instruments that comply with the harmonised structural, credit risk and prudential standards can use the covered bond brand and can have access to special regulatory treatment and preferential risk weights, as offered in the current EU financial regulation.

The EBA's approach consists of the following three steps:

- *Step I*: a new covered bond framework, which would provide a definition of the covered bond product as an instrument recognised by the EU financial regulation (implementation via directive is recommended). Covered bonds seeking regulatory recognition would need to comply with the requirements specified in Step I;
- *Step II:* targeted amendments to the CRR provisions on covered bonds, which would enhance conditions for the access to preferential risk weight treatment of covered bonds. Covered bonds seeking preferential risk weight treatment would need to comply with the requirements specified in the Step I as well as in Step II; and
- *Step III:* voluntary convergence through non-binding instruments, which should stimulate voluntary convergence between national frameworks in specific areas (non-compliance with the recommendations in this area would not have impact on the eligibility of the covered bonds for preferential regulatory and risk weight treatment).

The European Commission is considering the EBA's framework and has directed the impact study it commissioned following its consultation last year specifically to assess the impact of introducing the EBA framework. Once the Commission has received the impact study, it will consider how to operationalise the framework.

The ICMA Covered Bond Investor Council (CBIC) has been, and will remain, engaged in this process and we expect to consider and engage with the European Commission and other actors as the legislative phase moves forward in 2017. The next CBIC investor conference is on 1 June and will provide a good opportunity to exchange views with the authorities, investors and issuers of covered bonds on the Commission's agenda.

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The European Banking Authority proposes a three-step approach to covered bond harmonisation in Europe.

ICMA bail-in workshop and TLAC inconsistencies

By Katie Kelly

The ICMA Bail-in Working Group, which is a committee of, and reports to, the ICMA Asset Management and Investors Council (AMIC), is holding a bail-in event on 7 April 2017. The Bail-in Working Group seeks to explore issues around the operation of the bail-in mechanism in order to preserve confidence by ensuring that bank capital remains a sustainable and investible proposition, with debt markets available at reasonable prices to provide banks with necessary liquidity.

Conclusions of the Bail-in Working Group include the need for clarity and transparency, allowing comparability and predictability of the new regulatory environment in which the banks throughout Europe operate. It also advocates consistency and clear communication, predictability of the practical application of resolution powers and the various triggers along the capital structure, standardisation and homogeneity, in particular when it comes to a framework for achieving subordination and clarity around valuation methods and fairness as to how losses are attributed.

The Bail-in Working Group regularly represents its collective views to the ECB, the European Commission and the Single Resolution Board and other policy makers with a view to engaging them in constructive and open dialogue, all of which can be viewed on the relevant ICMA webpage. The purpose of the event on 7 April is to encourage direct debate and elicit views on buy-side issues on bail-in among investors, issuers and intermediaries, while inviting comment from regulatory authorities, via a number of panels which will be interactive and lead to further open discussion with the audience.

The panels will address: the challenge of pricing bank debt, as well as the risk of bail-in, and any rational correlation between "market price" versus the "risk return"; the adequacy of current financial institution disclosure; and whether the rights and obligations of bondholders should be adjusted to better reflect the actual economic risk-taking and influence of different stakeholders.

Meanwhile, on the issuer's side, it seems that two different standards are emerging between the US and Europe when it comes to acceleration rights in TLAC-eligible securities. The Fed's TLAC rules (finalised at the end of December 2016) require the removal of investors' ability to demand acceleration in all cases except for payment default (for bonds issued after the end of 2016), while in Europe, acceleration is only allowed in the case of a bank insolvency or liquidation. These potentially conflicting standards will not only lead to uncertainty for issuers when it comes to grandfathering and the position of outstanding bonds with acceleration rights which might not end up being consistent with the final CRR position in Europe, but will also be of concern for investors when it comes to understanding their acceleration rights. A difference in standards could also result in pricing and marketing arbitrage between US and European bank securities, so in all cases consistency and harmonisation would be welcome.

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AMIC Council in Frankfurt

The latest AMIC Council took place on 23 March in Frankfurt, hosted by Allianz Global Investors. The AMIC Council holds two plenary sessions annually to advise the Executive Committee of AMIC on priorities and to discuss current issues at biannual conferences. These meetings also provide excellent networking opportunities for the AMIC community.

In Frankfurt, the AMIC heard insights into the operations of the ECB's Asset Purchase Programmes (APP) from Torsti Silvonen, Deputy Director-General, Market Operations at the ECB, followed by an investor panel debating direct and indirect effects of QE including: market distortions; FX; and income distribution. The panel also discussed the challenges and expected market impact once the ECB stops using this tool.

The second panel of the day discussed systemic risk in asset managers, and provided insights into a range of topics from the use, calculation and disclosure of leverage in funds, liquidity risk management in open-ended funds, the designation of asset managers as SIFIs, the growth of ETFs, and the challenge of highlighting the differences between banks and asset managers' business models.

The third panel featured a balanced insight into the development and challenges of the green bonds market, from the perspectives of two investors and two issuers. Panellists discussed the processes involved in issuing and investing in green bonds.

AMIC Chairman Robert Parker also provided the participants with his assessment of the challenges and opportunities for the asset management sector. The next Council will take place in the autumn of 2017.

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Green Bond Markets



by Nicholas Pfaff, Valérie Guillaumin and Peter Munro

Summary

A landmark development for the green bond market in the first quarter 2017 was the inaugural sovereign issue by France, following a maiden sovereign issue by Poland late last year. The French issue was the largest and most liquid benchmark reference to date. It also set an innovative example in terms of approach to issuance. Such sovereign issuance, with other sovereigns lining up, is regarded as a highly positive shift for the market.

ICMA contributed to important new initiatives for the development of sustainable finance more broadly: inaugural meetings of the EU High Level Expert Group on Sustainable Finance (HLEG), and ICMA's assembly of a range of financial trade associations to create a new cross-asset class Global Green Finance Council.

Finally, the AGM and annual conference of the Green Bond Principles (GBP) will be held in Paris on June 14. The main item on the agenda will the 2017 update of the Principles.

Green bonds by sovereign issuers

France's first "Green OAT" is aligned with the GBP, offering a crucial new liquid reference for the market: This record sized green bond raised €7 billion, with an order book in excess of €23 billion. The issue size and order book are among the largest achieved for a French benchmark issue, underlining the strong market acceptance of the green format.

France's entry is also of structural importance for the green bond market, as France is the first "core sovereign" benchmark issuer in the euro area to issue a green bond. Diversification of sovereign issuance is expected to be an important feature of the market going forwards, with several other countries across the globe signalling an interest in issuing.

The approach adopted by France for its green bond framework brought important innovations. The types of use of proceeds include areas not yet seen in a green bond, such as green tax credits, and feedback received so far indicates that such innovations have been widely accepted in the market. The French framework has furthermore devised means to trace the use of proceeds, while respecting sovereign accounting and budgetary practice. Poland's earmarking approach also achieved this, albeit electing to use a special new legislative arrangement. France also promises to raise the bar for *ex-post* reporting: this is expected to leverage existing government reporting on outputs, to be combined with work by a special advisory council that will integrate and evaluate impact reporting.

EU High Level Expert Group

The EU's HLEG has got under way this year, with ICMA acting as an observer. The EU has publicly emphasised its aim to develop policy recommendations on sustainable finance: the "goal to develop an overarching and comprehensive EU strategy on sustainable finance as part of the Capital Markets Union". The approach explicitly references green bonds: EU Vice-President Valdis Dombrovskis, responsible for Financial Stability, Financial Services and Capital Markets Union, said: "The European Union is pushing for a global transition towards a more sustainable economy. The work we are doing on sustainable finance within the Capital Markets Union is part of this. We've made a start by supporting market initiatives such as green bonds. We're looking at ways to encourage institutional investors to have more sustainable investment policies. We want to see what more can be done to support the transition to a low-carbon economy in the financial sector. Our Expert Group will help shape this crucial policy agenda."

Global Green Finance Council

The Global Green Finance Council (GGFC) is a flexible federation of associations, aiming to coordinate on green finance both within financial markets and between market players and public authorities. It was jointly launched with the Global Financial Markets Association (GFMA) in London on 16 February. In addition to ICMA and GFMA (representing SIFMA, AFME and ASIFMA), it was attended by representatives of CERES, the European Banking Federation (EBF), the European Fund and Asset Management Association (EFAMA), the International Institute of Finance (IIF), Insurance Europe and the Loan Market Association (LMA). Other relevant trade associations have expressed interest and the composition of the forum is expected to evolve, and to work in close consultation with leading market participants.

GBP AGM

Looking ahead, the GBP has confirmed the date and venue for its 3rd AGM and annual conference: the two events will be held on 14 June in Paris following the kind invitation of the French Treasury and with the support the Paris Green and Sustainable Finance Initiative (registrations are open). Last year's event in London attracted a full house of around 300 participants. The main item on the agenda of the AGM and annual conference in Paris will be the 2017 edition of the GBP. This year's update follows the annual consultation of GBP members and observers that ran from mid-November to mid-December 2016 and led to more than 50 detailed responses. The GBP Executive Committee and its four Working Groups (Index and Database, Green Projects Eligibility, Impact Reporting and Social Bonds) are now using this feedback as a basis of the discussions for the update.

ASEAN Capital Markets Forum

Finally, the GBP continued to receive broader official recognition which supports further market expansion and internationalisation. The ASEAN Capital Markets Forum (ACMF) notably announced its planned green bond guidelines to be based on the GBP and that will be developed in collaboration with ICMA.

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European corporate private placements

By Katie Kelly

The Euro Corporate Private Placement Joint Committee (ECPP JC) has initiated contact between the ECPP JC and the consultants responsible for the European Commission's study to "identify the regulatory and market barriers to the development of private placements". The study will seek to assess the economic benefits of issuing private placement, as well as identify and consider any particular barriers to issuing and investing in private placement, by reference to the US private placement and the German Schuldschein models, with a view to exploring and encouraging optimal conditions for the growth of this market in Europe.

Unrelated to regulation and to markets themselves is that, from the point of view of issuers, the forms and availability of funding remain opaque, as well as how to go about obtaining the funding. Any means of removing the information barriers between issuers and prospective investors/lenders and mapping the various forms and availability of funding would be welcomed, a challenge which is acknowledged in the European Commission's Capital Markets Union Mid-Term Review.

In terms of Solvency II, ICMA has previously stressed the importance of creating a level playing field for investment in private placements by institutional investors throughout the Member States, and one area where discrepancies remain in terms of investment profiles as between bank investors and insurance investors lies in the capital charges under Solvency II. The calibrations for capital charges currently assume that investors trade in private placements and are fully exposed to their market volatility. In reality, for buy-to-hold investors such as insurers acquiring private placements to match their long-term liabilities, the exposure is not to market volatility of private placements, but to counterparty default risk, which is not appropriately recognised in Solvency II and should be the subject of further investigative work. The Solvency II Working Group is therefore keen to provide market-based evidence to support this methodology-based solution.

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International Regulatory Digest

by David Hiscock and Alexander Westphal

G20 financial regulatory reforms

On 3 January 2017, it was announced that the Group of Central Bank Governors and Heads of Supervision (GHOS), the oversight body of the BCBS, welcomes the progress made towards completing the BCBS's post-crisis regulatory reforms. However, before the GHOS can review the package of proposals, more time is needed to finalise some work, including ensuring the framework's final calibration; and the BCBS is expected to complete this work in the near future. A meeting of the GHOS, originally planned for early January, was therefore postponed. Then, on 2 March, following a BCBS meeting, the BCBS Chairman stated that the BCBS has made further progress towards the finalisation of the Basel III reforms, with BCBS members having reiterated their broad support for the key reform features. Differences in views, where they remain, have narrowed and work continues to reach an agreement. While the finalisation of Basel III will take longer than originally expected, the BCBS remains determined to reach agreement, and recognises the importance of providing clarity and certainty.

On 28 February, the FSB concluded a two-day meeting in Cape Town. Amongst other things, the FSB:

- reviewed progress on both the implementation of post-crisis reforms and the evaluation of their effects and effectiveness;
- discussed progress on its development of a consistent comprehensive framework for evaluating the post-implementation effects of the reforms;
- progressed deliverables for the G20 Leaders' Summit in July, including work on financial technology, financial sector misconduct and climate-related financial disclosures;
- reviewed the outcomes of a pilot systemic stress simulation exercise, examining fixed income market liquidity resilience across a number of markets, and of a workshop on systemic stress, investor behaviour and market liquidity;
- discussed an interim report that seeks to quantify interdependencies between CCPs, major clearing members and financial service providers and the resulting systemic implications; and
- welcomed a progress report on governance arrangements for the Unique Trade Identifier (UTI) and Unique Product Identifier (UPI), which are globally harmonised identifiers that are being developed to facilitate aggregation and analysis of data about OTC derivatives reported to trade repositories.

On 17 March, the FSB published a letter from Mark Carney, Chair of the FSB, sent to G20 Finance Ministers and Central Bank Governors ahead of their meeting in Baden-Baden from 17-18 March. In this letter, the FSB Chair:

- highlights the good progress made in implementing the post-crisis reforms, as a result of which the global financial system is moving from a state of fragility to greater resilience;

Fragmentation of funding and liquidity markets would reduce the availability and raise the costs of finance to the real economy.

- notes that as implementation progresses, the FSB and the standard-setting bodies are increasingly turning to post-implementation evaluation of the effects of reforms, to address gaps and any material unintended consequences – standing ready to adjust reforms where needed, without compromising on their objectives;
- with the benefits of the reforms beginning to be realised, warns against the risk of a loss of momentum in completing and fully implementing essential international standards – flagging the risk that this could pose to the maintenance of an open global financial system, noting that a fragmentation of funding and liquidity markets would reduce the availability and raise the costs of finance to the real economy across all economies; and
- outlines the FSB priorities under the German G20 Presidency which are:

a) transforming shadow banking into resilient market-based finance, including by addressing structural vulnerabilities in asset management;

b) making derivatives markets safer by progressing the post-crisis reforms to OTC derivatives markets and delivering coordinated guidance on CCP resilience, recovery and resolution;

c) supporting full and consistent implementation of post-crisis reforms, including the development of a structured framework for post-implementation evaluation of the effects of reforms; and

d) addressing new and emerging vulnerabilities, including misconduct risks, as well as those stemming from the decline in correspondent banking and from climate-related financial risks.

A communiqué was published following the G20 Finance Ministers and Central Bank Governors Meeting, in Germany on 17-18 March; and a number of other G20 finance track documents have been made available. Paragraph 5 of this latest communiqué covers points relating to ongoing financial regulatory reform, including:

- reiteration of the commitment to support the timely, full and consistent implementation and finalisation of the agreed G20 financial sector reform agenda;
- endorsement of the FSB policy recommendations to address structural vulnerabilities from asset management activities – with IOSCO asked to develop concrete measures for their timely operationalisation and the FSB asked to report on progress of this work by the G20 Leaders' Summit, on 7-8 July 2017;
- looking forward to the FSB's comprehensive review of the implementation and effects of the reforms to OTC derivatives markets – and calling on G20 members to complete the full, timely and consistent implementation of these where they have not already done so;
- welcoming progress by the CPMI, IOSCO and FSB towards developing guidance to enhance the resilience, recovery and resolvability of CCPs – while looking forward to their publication by the time of July's Summit;
- confirming support for the BCBS's work to finalise the Basel III framework without further significantly increasing overall capital requirements across the banking sector, while promoting a level playing field; and
- further enhancing monitoring of implementation and effects of reforms to ensure their consistency with overall objectives, including by addressing any material unintended consequences – and welcoming FSB work to develop an applicable structured framework for presentation by the time of July's Summit.

On 24 March, the BCBS published overviews of post-Regulatory Consistency Assessment Programme (RCAP) follow-up actions taken by member jurisdictions to address deviations from the BCBS standards identified in their RCAP assessments; along with a summary of these follow-up actions. This covers those jurisdictions whose RCAP assessment reports were published by December 2015, namely: Australia, Brazil, Canada, China, the EU, Hong Kong SAR, India, Japan, Mexico, Saudi Arabia, Singapore, South Africa, Switzerland and the US. These reports are provided by the authorities in each jurisdiction and the actions taken have not been reviewed or evaluated by the BCBS. In 2018 the BCBS will publish overviews of post-RCAP follow-up actions taken by those member jurisdictions assessed in 2016.

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European financial regulatory reforms

For the first half of 2017, Malta holds the Presidency of the Council of the EU. Overall, Malta summarises its Presidency priorities as relating to the six topics of migration; the single market; security; social inclusion; Europe's neighbourhood; and maritime. The Maltese Presidency programme introduces the Presidency's generic theme of rEUnion. It then elaborates on specific points related to the various Council configurations. Under Economic and Financial Affairs, this elaboration includes points relating to EU budget, economic governance, financial services and Banking Union, taxation, anti-fraud, anti-money laundering, and investment.

Considering financial services and Banking Union, the Maltese Presidency will:

- continue to push forward the discussions on the CMU Action Plan, in particular aiming to finalise discussions with the European Parliament on the common rules on securitisation and creating a European framework for STS Securitisation;
- organise meetings with the European Parliament to negotiate the revision of the EuVECA and EuSEF legislation on the basis of the Commission proposal, aiming to reach a political agreement during the Presidency;
- take forward the remaining elements of the CMU agenda, in particular the relevant policy initiatives within the narrative of growth and jobs, continuing to push forward initiatives that enable the development of a wider range of funding sources which are better connected to the needs of EU SMEs;
- aim to make progress on the legislative proposals on banking issued in November amending the CRD, CRR, BRRD and SRMR, which include the EU's implementation of international standards;
- continue the work on the legislative proposal on CCPs;
- initiate work on the review of EMIR, which will be issued in the first quarter of 2017; and
- continue constructive work at technical level on EDIS while aiming to progress on the risk reduction measures in the banking proposals.

And, considering investment, the European Fund for Strategic Investment (EFSI) 2.0 and the EIB External Lending Mandate are priority files that will be worked on together with the European Parliament during the Maltese Presidency; and all efforts will be made to ensure a political agreement.

On 20 January, as part of its efforts to achieve a CMU with tangible impact, the European Commission launched a public consultation, open until 17 March, on the planned CMU Mid-Term Review. This consultation offers an opportunity for stakeholders to provide targeted input to complement and advance actions put forward in the CMU Action Plan; with the results of this consultation feeding into the mid-term review of the CMU Action Plan that the Commission aims to publish in June 2017. The review will seek to strengthen the current policy framework for the development of capital markets by updating the proposed actions and integrating complementary measures in response to key challenges.

ICMA responded to this consultation focusing on the successful completion of those workstreams in which ICMA is involved rather than the launch of new measures. ICMA's response is preceded by two brief notes on broader themes: the importance of minimising the impact of UK withdrawal from the EU on the CMU project; and the importance of ensuring EU global competitiveness.

On 7 February, ESMA published its *Risk Assessment Work Programme*, setting out its work priorities for 2017, which provides an overview of the analytical, research, data and statistical activities by ESMA. ESMA's 2017 risk assessment agenda is focused on:

- completing the necessary technical infrastructure for data processing, and programming in order to use the data for analytical evaluation, as market data collected under the AIFMD, MiFID, EMIR and other mandates become available;
- enhancing ESMA's risk monitoring capacities, generating market descriptive statistics as well as sophisticated risk indicators and metrics based on new proprietary data;
- pursuing in-depth research around key topics, including market and fund liquidity, fund leverage, and the impact of innovation especially in the areas of market infrastructures and investment advice; and
- continuing impact assessment activities and further enhancing stress testing work, aiming at successively more sophisticated EU-wide tests on CCPs, and developing ESMA's approach to investment fund stress testing going forward.

On 9 February, ESMA published its 2017 *Supervisory Convergence Work Programme* (SCWP), which details the activities and tasks it will carry out to promote sound, efficient and consistent supervision across the EU. ESMA and national competent authorities (NCAs) will focus their supervisory convergence work on the following priorities:

- the implementation of MiFID II/MiFIR and MAR including the underlying IT projects;
- improving the quality of data collected by NCAs;
- investor protection in the context of

cross-border provision of services; and

- convergence in the supervision of European Union CCPs.

These priorities have been developed taking into account different factors, including the market environment, legislative and regulatory developments, and NCAs' supervisory priorities. In addition, ESMA will support NCAs through facilitating an effective supervisory dialogue and day-to-day contacts supporting a common supervisory culture. ESMA will also ensure more systematic monitoring of compliance by NCAs with guidelines and peer review recommendations and will provide remediation as required.

On 6 March, it was announced that the Vienna Initiative Forum had agreed to establish a Working Group on CMU. This follows the EU's push to strengthen capital markets, which will have a major impact on financing of investment and sustaining growth in the Central, Eastern and South-Eastern Europe region (CESEE). All members of the Forum expressed their strong commitment to the work of the new Working Group, which will report by the end of 2017. The Working Group will help to promote the diversification of investment finance in the CESEE region, mobilize the Vienna Initiative network to analyse structural obstacles and regulatory gaps impeding capital market development in the CESEE region and identify solutions at the national and regional levels.

On 21 March, the European Commission launched a public consultation, for comment by 16 May, on the operation of the three ESAs – EBA; EIOPA; and ESMA – which are a cornerstone of the reforms put in place in the wake of the financial crisis, having played a key role in ensuring that the financial markets across the EU are well regulated, strong and stable. Since their establishment, the ESAs have contributed to the building of the Single Rulebook for financial services (banking, insurance and capital markets) and to the convergence of supervisory practices, in order to ensure a robust financial framework for the Single Market and to underpin the creation of the Banking Union. Recognising that more coordinated and integrated supervision will be increasingly important in future, notably to develop and integrate EU capital markets through CMU, the Commission's aim now is to identify areas where the effectiveness and efficiency of the ESAs can be strengthened and improved. The consultation results should provide a basis for concrete and coherent action by way of a legislative initiative, if required.

The Commission's aim now is to identify areas where the effectiveness and efficiency of the ESAs can be strengthened and improved.

The consultation document focuses on four broad categories of issues: (I) tasks and powers of the ESAs; (II) governance; (III) supervisory architecture; and (IV) funding; and sets out 32 specific questions. Considering the first of these categories, the consultation document is divided into three sections: (A) optimising existing tasks and powers; (B) new powers for specific prudential tasks; and (C) direct supervisory powers in capital markets. In the last of these sections, three examples are given to illustrate some of the reasons which may justify, in certain market segments, a reflection on a possible extension of ESMA's current mandate to accompany the building up of the CMU. These examples are in respect of (1) data providers; (2) pan-EU investment fund schemes; and (3) post-trading market infrastructures. The ESAs themselves published a statement welcoming this public consultation.

On 22 March, the European Commission published an inception impact assessment, for comment within four weeks, regarding a review of the appropriate prudential treatment for investment firms. This review is being conducted recognizing that the current framework, which is largely focused on credit institutions, is not fully suited to all investment firms; and is being carried out in consultation with the EBA and ESMA. The review aims to: (i) evaluate the appropriateness of existing prudential requirements applicable to investment firms under the CRR and CRD IV; and (ii) where necessary introduce more appropriate prudential requirements in order to reflect the business models and capture the risks faced and posed by different types of investment firms, only a small number of which are large and may present systemic risks on a par with credit institutions, in a better way. The EBA will deliver a report to the Commission, in June, outlining their advice on a new prudential treatment for investment firms.

The European Commission adopted a report, dated 24 March, looking at how to tackle national barriers with a view to fostering the flow of cross-border investments in the EU. The report, which is based on the work of a group of national financial experts, identifies national hurdles, such as withholding tax procedures, residence requirements imposed on the management of financial institutions and a lack of financial literacy. The ECOFIN Council in 2015 supported the Commission in this exercise and called for a roadmap to tackle the most damaging national barriers. This new report proposes such a roadmap and calls on the Member States to endorse it and take action. The report chimes with Commission efforts to create integrated financial markets in the EU as part of its CMU. It will feed into work to create a clear, predictable and stable environment that allows for more investment and a more efficient allocation of capital.

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Credit rating agencies

On 3 February 2017, ESMA published its *Annual Report and Supervision Work Programmes*, setting out its main areas of supervisory focus for CRAs, TRs, and third country CCPs in the EU. This publication also details the actions ESMA has taken in 2016 in carrying out its supervisory role. ESMA will continue to focus on the quality of credit ratings. In particular, CRAs' implementation of ESMA's 2016 Guidelines, which clarify how CRAs should validate and review their methodologies, will be an important part of how ESMA ensures adequate validation practices across CRAs. Common themes in supervising both CRAs and TRs will include business strategy in light of the UK exiting the EU, governance issues, the implementation of ESMA's supervisory strategy on fees, internal controls and IT issues and trends.

On 23 March, ESMA published the official translations of its final guidelines on the validation and review of CRAs' methodologies (the, 15 November 2016, publication of these ESMA final guidelines was reported on in this section of Issue 44 of the ICMA Quarterly Report). The guidelines clarify how CRAs should validate and review their methodologies, furthering ESMA's work towards CRAs improving the quality of credit rating methodologies and credit ratings for the purpose of protecting investors and financial stability. The guidelines become effective in two months from this date.

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OTC (derivatives) regulatory developments

On 18 January 2017, the EBA and ESMA published their joint report on the interactive functioning of the CRR with EMIR. This report calls for the requirements for credit, market, and counterparty credit risk in the CRR to be clarified, in order to ensure that only risks not already covered by specific financial resources for activities not related to clearing are to be covered by CRR requirements. This exclusion should also be extended to activities covered by interoperability arrangements. In particular, the following topics have been addressed in the report: (a) capital requirements for CCPs holding a banking licence; (b) leverage and liquidity for CCPs; (c) large exposures; (d) difference in margin period of risk application; and (e) clients' exposures to clearing members.

On 31 January, ESMA opened a public consultation, for comment by 31 March, regarding future guidelines on the transfer of data between TRs authorised in the EU under EMIR, of which there are currently six. The need to transfer data to another TR may arise for different reasons, so the guidelines address separately the situations where the transfer is due to a withdrawal of registration of the TR from the cases in which the transfer is done on a voluntary basis and under normal market conditions. The proposed guidelines establish high-level principles that would need to be followed by the TR participants on the one hand, and the TRs on the other. ESMA expects to publish a final report of these guidelines by end of Q2, or beginning of Q3.

On 2 February, ESMA issued an update of its Q&A on practical questions regarding EMIR. The updated Q&A includes a new answer in relation to transition to the revised technical standards on reporting, which will become applicable on 1 November. It clarifies that the reporting entities are not obliged to update all the outstanding trades upon the application date of the revised technical standards and that they are required to submit the reports related to the old outstanding trades only when a reportable event takes place (eg when the trade is modified).

On 3 February, ESMA published its *Annual Report and Supervision Work Programmes*, setting out its main areas of supervisory focus for CRAs, TRs, and third country CCPs in the EU. This publication also details the actions ESMA has taken in 2016 in carrying out its supervisory role. ESMA will continue to focus on the quality of the information produced by TRs – the quality of trade repository data – and its availability, given its critical importance to regulators and overall financial stability. Common themes in supervising both CRAs and TRs will include business strategy in light of the UK exiting the EU, governance issues, the implementation of ESMA's supervisory strategy on fees, internal controls and IT issues and trends. For third country CCPs, ESMA's priorities for 2017 relate to pending requests for recognition, as more countries are declared equivalent, and the finalisation of a risk framework to identify priorities for recognised third country CCPs.

On 23 February, the Board of IOSCO issued a *Statement on Variation Margin Implementation*. This acknowledges the challenges facing some market participants working to complete the necessary documentation and processes to be in full compliance with variation margin requirements, scheduled to take effect, by 1 March 2017, in accordance with minimum standards established by IOSCO and the BCBS and implemented under domestic laws in various jurisdictions. While reaffirming its commitment to implementation of the margin requirements, by 1 March, the Board believes that relevant IOSCO members, to the extent permitted by their relevant legal and supervisory frameworks, also should consider taking appropriate measures available to them to ensure fair and orderly markets during the introduction and application of such variation margin requirements.

Also on 23 February, the ESAs published a joint statement in response to industry requests relating to operational challenges in meeting the deadline of 1 March 2017 for exchanging variation margin. Noting that there has already been delay, this states that from a legal perspective neither the ESAs nor competent authorities (CAs) possess any formal power to dis-apply directly applicable EU legal text – for instance by issuing non-action letters, which exists in some non-EU jurisdictions. As such, any further delays of the application of the EU rules would formally need to be implemented through EU legislation, which is not possible at this point in time due to the lengthy process for adopting EU legislation. As regards difficulties that in particular smaller counterparties are facing, the ESAs expect CAs to generally apply their risk-based supervisory powers in their day-to-day enforcement of applicable legislation; but envisage a case-by-case assessment from the CAs on the degree of compliance and progress.

> **IOSCO members should ensure fair and orderly markets during the introduction and application of such variation margin requirements.**

On 16 March, a revised RTS was published by the European Commission delaying, until 21 June 2019, the effective date of the EMIR clearing obligation for category 3 counterparties (which comprise those financial counterparties and AIFs falling below the €8 billion gross notional threshold). The start date of the clearing obligation was previously set for 21 June 2017 with regard to OTC interest rate derivatives denominated in EUR, GBP, JPY, and USD; and for 9 February 2018 with regard to OTC index credit default swaps and OTC interest rate derivatives denominated in NOK, PLN and SEK. The revised RTS is now subject to a three-month scrutiny period, afforded to the European Parliament and Council.

EMIR provides for cooperation arrangements between ESMA and the relevant non-EU authorities whose legal and supervisory framework for CCPs have been deemed equivalent to EMIR by the European Commission. On 20 March, ESMA duly announced that it has established five new Memoranda of Understanding (MoUs) under EMIR. These MoUs establish cooperation arrangements, including the exchange of information, regarding CCPs which are established and authorised or recognised in Brazil, Japan, India, the Dubai International Financial Center or the United Arab Emirates, and which have applied for EU recognition under EMIR.

ESMA's list of CCPs authorised to offer services and activities in the EU, in accordance with EMIR, has not been updated since 19 September 2016; and its list of third-country CCPs recognised to offer services and activities in the EU was last updated on 30 March. ESMA's *Public Register for the Clearing Obligation* under EMIR was last updated on 8 February; whilst its (non-exhaustive) list of CCPs established in non-EEA countries which have applied for recognition has not been updated since 3 October.

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Market infrastructure

ECB: Market contact groups

As reported in the previous Quarterly Report, the ECB has recently restructured its market infrastructure related industry advisory groups. Most importantly, the old COGESI has been merged with the T2S Advisory Group (T2S AG) to form two new advisory groups for market infrastructure: the Advisory Group on Market Infrastructure for Securities and Collateral (AMI-SeCo) as well as AMI-Pay, which will focus on issues related to payments. Both groups will directly feed into the ECB's Market Infrastructure Board (MIB) and thus help to steer the Eurosystem's initiatives in the field of market infrastructure.

The ICMA ERCC is represented in the AMI-SeCo through Nicholas Hamilton, Co-Chair of the ERCC Operations Group, along with 50 other members representing users, market infrastructures and central banks. The main mandate of the AMI-SeCo is to advise the Eurosystem on matters related to securities clearing and settlement and collateral management, as well as T2S and other Eurosystem services in this space. AMI-SeCo members in turn will receive input from the Harmonisation Steering Group (HSG) as well as the T2S National User Groups, who both previously reported to the T2S AG. The AMI-SeCo will meet at least twice a year and is expected to be an important driver of further harmonisation in the European capital market infrastructure.

The inaugural meeting of the AMI-SeCo was held on 6-7 March 2017 in Frankfurt and served to frame the agenda for the group going forward. The meeting also already highlighted a number of interesting initiatives that the ECB is currently developing in the context of its strategic reflections on the future of financial infrastructure in Europe (see next section). The AMI-SeCo will further review these and also pick up previous COGESI work on the harmonisation of collateral management activities. As previously reported, this work covers a whole range of important issues related to collateral management and is split in three work streams: (i) collateral mobility; (ii) asset holding and segregation; and (iii) collateral messaging.

Other ECB contact groups have not been affected by the restructuring and continue to exist in their established composition. Members of the Bond Market Contact Group (BMCG) last met on 7 February 2017 in Frankfurt. A summary of the meeting is available on the Group's webpage, alongside a number of presentations given at the meeting, including on GDP-linked bonds and sovereign backed issuance, the impact of the ECB's APP, yield curve targeting, and the general bond market outlook. The next quarterly meeting of the BMCG will be held on 16 May 2017. A tentative agenda is already available and includes, among other things, a discussion on the implications of Brexit for European bond markets as well as a review of secondary market liquidity and the impact of repo liquidity. The latter topic will be introduced jointly by Laurent Clamagirand (AXA) and ICMA Chairman Martin Scheck, who represents the Association on the BMCG and will give an overview of the important work that ICMA is undertaking in the field of market liquidity and repo.

On 14 March 2017, the Money Market Contact Group (MMCG) had its latest regular meeting. At the meeting members reviewed the latest activity in the euro area money market, based on the MMCG quarterly survey as well as data from the ECB's Money Market Statistical Reporting (MMSR). In addition, a number of important recent developments were discussed, including the difficulties in money and repo markets around the year-end 2016 and the reasons for these dislocations. Another topic on the agenda was intraday liquidity management, both from a regulatory and a market perspective. No documents are available yet from the latest meeting. However, the ECB has now published a summary and all presentations from the previous MMCG meeting which was held on 12 December 2016. The next quarterly MMCG meeting is scheduled for 13 June 2017.

Finally, another important contact group is the Operations Managers Contact Group (OMCG) which last met on 9 March 2017. While the documents from that meeting are not yet available, the ECB has published on its website the material from the previous OMCG meeting held on 12 October 2016. Besides the usual summary of the meeting, several presentations are available, including some interesting slides presented by Klaus Loeber, senior adviser to the ECB, on the potential impact of distributed ledger technology (DLT) on the post-trade environment. The next meeting of the OMCG is scheduled for 22 June 2017.

Eurosystem: Vision on the future of financial market infrastructure

The ECB's vision on the future of financial market infrastructure in Europe continues to take shape. In a speech in September 2016, Yves Mersch, Member of the ECB's Executive Board, provided an updated view on the Eurosystem's strategy, setting out the next steps in the evolution of the Eurosystem's market infrastructure. The strategy centres around three key building blocks:

- a consolidation of TARGET2 and TARGET2-Securities (T2S);
- settlement services to support instant payments;
- a potential Eurosystem collateral management system (ECMS).

Work is progressing on all three components. A dedicated Task Force on future RTGS services has been set up to define and specify the user requirements for possible new RTGS services, based on the feedback received to the related market consultation. Similarly, a Task Force has also been created to further review the user needs related to instant payments, including proposals for a new TARGET instant payment settlement service (TIPS). While these two issues are thus being developed with direct input from market participants, the proposals for a Eurosystem collateral management system (ECMS), as a potential successor for the CCBM2 project, are currently reviewed internally by the ECB. More recently, the ECB has announced that it is also reflecting on a project that might add another important layer to the Eurosystem's future market infrastructure: the development of a centralised European issuance service for supranational debt instruments within T2S. As mentioned above, the new AMI-SeCo will be an important forum to discuss the different project that are being developed as part of the Eurosystem's Vision for Europe's future financial market infrastructure and receive the necessary feedback from users and infrastructure providers.

In the context of future market infrastructure, it is of course also important to consider the impact of financial innovation, which the ECB is closely monitoring. A topic of particular relevance in this regard is distributed ledger technology (DLT). The ECB has created a dedicated Task Force on DLT which is assessing the potential impacts of this technology in the post-trade space.

On 31 January, the ECB hosted a joint conference with the European Commission to discuss the future of Europe's financial market infrastructure in a time of increasing digitalisation. The event brought together representatives of the financial industry and the public sector to discuss a wide range of topics, from CMU and post-trade integration to the digital transformation of the market and the threats of cybercrime. The full agenda and many of the speeches are available on the ECB's website.

ECB: TARGET2-Securities (T2S)

The fourth T2S migration wave, the largest to date, was successfully rolled out over the weekend of 4-5 February 2017. This most recent migration saw the onboarding of six additional CSDs to T2S, including Clearstream Banking Frankfurt, the German CSD, together with CSDs from Austria (OeKB CSD), Hungary (KELER), Luxembourg (LuxCSD), Slovakia (CDCP) and Slovenia (KDD). Wave 4 has almost doubled the volume of securities transactions being settled in T2S, which has now reached around 90% of the total volume expected upon completion of the T2S migration. Only one migration wave is still outstanding. Wave 5, scheduled for September 2017, will see a final group of 4 CSDs connect to T2S, among which the Spanish CSD (Iberclear) as well as the three Baltic CSDs from Estonia, Latvia and Lithuania, bringing the total to 22 participating CSDs.

One of the key achievements of T2S is the important harmonisation agenda in the field of settlement and post-trade more broadly that comes with it. A detailed overview of all the 24 harmonisation activities pursued in the context of T2S is included in the latest 7th T2S Harmonisation Progress Report which was published on 31 January 2017. The report shows that 70% of the activities are now fully complied with, compared with 63% five months ago.

European Commission: European Post Trade Forum (EPTF)

The work of the EPTF is approaching its final stages. The group which was set up by the Commission in early 2016 in the context of the CMU project has now nearly completed its important task, which consists of a detailed review of all remaining barriers to cross-border clearing and settlement in Europe. Besides reassessing each of the barriers that had been previously identified, most importantly the two Giovannini reports of the early 2000s, the final EPTF report will also add a number of new issues to the list. Overall, the report currently identifies 17 barriers that will need to be tackled on the way to a truly harmonized post-trade environment in Europe. In terms of next steps, EPTF members, including ICMA, are currently reviewing the final draft report before it is formally agreed at the last meeting of the Group on 24 April. Based on the findings set out in the EPTF report, the Commission will prepare a wider market consultation which is expected to be published in summer this year and which will set out the proposed way forward.

ESMA: CSD Regulation

Most of the so-called Level 2 measures under the CSD Regulation have now either been submitted by ESMA to the European Commission for review, as in the case of the draft RTS on settlement discipline (which is discussed in more detail in the Secondary Markets section of this Quarterly Report), or have already been adopted, as most other technical standards. However, the CSDR also mandates ESMA to prepare a couple of guidelines which were still pending. On 23 March, ESMA published the two sets of outstanding guidelines: the final *Guidelines on Access by a CSD to the Transaction Feeds of a CCP or of a Trading Venue* and *Guidelines on Participant Default Rules and Procedures under CSDR*. Once these have been translated and officially published, national competent authorities will have two months to confirm whether they intend to comply with the guidelines or to otherwise provide justification why they do not plan to do so.

Global Legal Entity Identifier System (GLEIS)

The number of LEIs issued to date is approaching half a million, an important mark that should be reached this month already. LEIs currently contain information on the legal entity itself ("who is who"), but this will soon be extended to also cover so-called Level 2 information on direct and ultimate parent companies ("who owns whom"). The website of the Global LEI Foundation (GLEIF), the operating arm of the GLEIS, contains a free LEI search tool which gives access to the full database of LEIs. The GLEIF also publishes on a monthly basis Data Quality Reports containing detailed assessments of

The GLEIF closely monitors initiatives around the world relevant to legal entity identification in regulatory reporting and supervision.

the overall level of data quality within the LEI system.

One of the main drivers of LEI issuance is of course regulation. The GLEIF thus closely monitors initiatives around the world relevant to legal entity identification in regulatory reporting and supervision. A useful and regularly updated overview of these requirements is available on the GLEIF website. In Europe, these initiatives importantly include MiFID II which will require hundreds of thousands of entities to obtain an LEI that are under no such obligation to date. As explained in a recent GLEIF blog post, firms that fail to obtain an LEI by 3 January 2018, the application date of MiFID II, will likely not be allowed to trade. In order to facilitate compliance with MiFID II, the GLEIF has created a new category in its framework for "registration agents", third parties that assist legal entities to access the network of Local Operating Units (LOUs) responsible for the actual issuance of LEIs.

BIS: Committee on Payments and Market Infrastructures (CPMI)

The CPMI, jointly with IOSCO, continues to develop its global framework for harmonised data elements for OTC derivatives reporting. This covers work on Unique Trade Identifiers (UTIs) and Unique Product Identifiers (UPIs), as well as other critical data elements. While primarily targeted at derivatives reporting, it is important to keep in mind that many of these data elements will be relevant for other markets as well, eg for securities financing transactions. On 28 February, following public consultation, CPMI-IOSCO published its final guidance in relation to the Harmonisation of UTIs. The report provides technical guidance to authorities on the definition, format and usage of the UTI and is intended to be applicable across all different jurisdictions. In the meantime, work is still ongoing in relation to UPIs and other critical data elements.

In line with many other authorities around the world, the CPMI is looking at the critical potential for distributed ledger technology in the post-trade space. In this context, the CPMI published, on 27 February, an analytical framework to assess distributed ledgers in payment, clearing and settlement, considering the important potential benefits as well as risks of the new technology. A more detailed review of regulators' views in relation to DLT is included in the following FinTech update of this Quarterly Report.

IOSCO

IOSCO is also focusing on the potential of tech-driven change in the securities market industry and has published, on 8 February 2017, a Research Report on FinTech, covering DLT, but also other FinTech innovations in the field of institutional electronic trading, retail investment platforms, peer-to-peer lending and equity crowdfunding.

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FinTech, DLT and regulation

by Gabriel Callsen

Introduction

Distributed ledger technology (DLT) or blockchain technology has attracted increasing attention from regulators and supervisors in recent months. Both European and other international regulatory bodies have published a series of papers on DLT and its implications for securities markets, in particular the BIS, ECB, ESMA, FINRA, and IOSCO. This article seeks to provide a high-level, albeit non-exhaustive, overview of the potential benefits and challenges from a regulatory perspective.

The fundamental concept of DLT or blockchain is explained in a previous article, in Issue 39 of ICMA's Quarterly Review. In brief, a distributed ledger is a shared database which is accessible to multiple users or participants. One of the key characteristics is that the distributed ledger is maintained by its participants, and not by a central database administrator or party. Every participant can have an identical copy of the ledger. Based on a consensus mechanism and encrypted technology, additions to the database such as new transactions are grouped together and validated by a network of participants ("nodes").

Probably the most prominent application of DLT, known as blockchain, is the virtual Bitcoin currency. Transactions in Bitcoins are aggregated in "blocks", and appended to existing records in a decentralized network or "chain" (hence the name blockchain). An encrypted signature is used to validate any transactions. The underlying operating model is open by design and allows anonymous parties to interact without any access restrictions, also referred to as "permissionless". While blockchain is one variation of DLT, regulators have focused on the broader concept of "distributed ledger technology" (DLT).

Considering the highly-regulated nature of the financial industry, the use of DLT has mostly been tested in a restricted or "permissioned" environment where participation and validation are governed by rules. In such an environment, the operator of a DLT network is able to create known or "trusted parties", differentiate levels of access for participants and thereby satisfy potential safety requirements. To ensure resilience of DLT networks, specific mechanisms are used to validate new transactions. These are described in more detail in published papers, eg those by the ECB or BIS.

Potential benefits

As the majority of securities exist in digital (or dematerialised) form, DLT lends itself to be applied at different stages of the securities trade lifecycle. While there is an exponentially growing number of industry initiatives, regulators have identified post-trade processing of securities as a particular area of focus.

Straight-through processing (STP) of securities transactions is currently hampered by the existence of a disparate number of applications and intermediaries. The combination of trade confirmation, affirmation, allocation and clearing on a distributed ledger has the potential to accelerate the settlement process significantly. In theory, settlement could be completed nearly instantly.

While instantaneous settlement would require significant changes to current market practices, and may not be suitable for certain types of transactions, a reduced settlement timeframe could generate a number of benefits, such as reduced counterparty risk, enhanced reconciliation and lower collateral requirements. Consequently, the reduction of collateral demand could contribute to market liquidity if applied on a sufficiently large scale.

So-called smart contracts have been identified as another potential source of efficiency gains. Encoding the terms of bonds into DLT would allow the automation of a number of transactions during the security lifecycle, such as calculating and crediting coupon payments, or executing margin calls in response to particular corporate actions or market events.

The current market practice is for the different sides and intermediaries of a trade to maintain separate records of asset holdings and transactions. The use of a distributed ledger would enable participants to share a digital database of assets. DLT could provide an audit trail spanning issuance, trade execution, clearing and settlement. Thus, DLT has the potential to render the recording of ownership of securities and traceability of transactions more efficient. Furthermore, shared information stored in distributed ledgers could be leveraged by multiple participants for Know-Your-Customer (KYC) and Anti-Money Laundering (AML) purposes.

In the same vein, market participants and regulators may benefit from having access to a single, accurate source of information in real time for regulatory reporting and risk management purposes. Under separate levels of access, firms and authorities could collect, consolidate and share data.

DLT could provide an audit trail spanning issuance, trade execution, clearing and settlement.

Considering records on DLT are by design distributed and shared, data and processes affected by a cyber-attack could be recovered more swiftly, provided not all ledgers are impacted simultaneously. In addition, the use of encryption techniques in the validation process and immutability of recorded data may increase the level of protection of the stored records.

Notwithstanding the potential benefits, the use of DLT raises a number of challenges and concerns from a regulatory perspective.

Challenges and risks

A major challenge for the financial industry, notably in the current post-trade space, resides in the lack of technical standards and harmonised rules. This is a critical aspect for the adoption of any emerging DLT solution in a "network industry" such as finance. In light of the increasing number of industry initiatives, it is deemed decisive for the adoption of DLT solutions whether these are established by one single party or a wider group of interested parties. Additionally, it is anticipated that any new DLT system would be adopted gradually, which requires interoperability with existing systems.

Governance of DLT networks in securities markets is a key concern. ESMA highlights the importance of suitable governance arrangements, and in particular "provisions on the liability of the respective parties, rules to approve/reject authorised participants, correction mechanisms, and applicable law in case of disputes". How to address conflicts of interests in operating and participating in a DLT network is one of the questions raised by FINRA. In the same vein, protecting privacy and confidentiality of sensitive data is considered critical.

Further concerns revolve around cybersecurity of distributed ledgers, both inside and outside the network. Despite the use of encrypted technology and decentralised mechanisms to validate new securities transactions or amendments of records, it must be considered how fraudulent transactions could be captured and reversed. In particular, the theft of private keys, which are used to access and control digital assets, is a key concern, according to IOSCO.

From an operational perspective, the use of DLT poses a number of potential risks. Given the distributed nature of records, erroneous entries disseminated across the network would have a significant impact. Once validated, transactions are irrevocable which is one of the key features of DLT. In the absence of recourse mechanisms, a reverse transaction would have to be validated. IOSCO highlights the need for further consideration of this potential issue. Coding errors in smart contracts may lead to similar complexities.

Legal challenges arise in various areas of DLT application, notably with regard to cross-border transactions. Records of ownership of securities are held by various entities (custodians, registrars, depositories etc) at different levels (issuer, investor). In the absence of a harmonised framework at cross-border level, applicable rules are governed by national legislation. In addition, determining the applicable law for records located in a DLT network across jurisdictions may prove to be difficult.

In terms of market structure and systemic risk, the application of DLT may give rise to monopolistic structures. Early adopters might create barriers to new entrants and thereby undermine fair competition and well-functioning markets. Similarly, transparency and the shared information of trades or inventories can potentially be exploited to "front-run competitors or manipulate prices", as pointed out by ESMA. On a systemic level, the use of smart contracts might reinforce market volatility under market stress.

DLT within the EU regulatory framework

Generally, the current framework continues to apply. With regard to clearing, ESMA stresses that OTC derivative transactions which are subject to the CCP clearing obligation would have to meet requirements under EMIR in a DLT environment. This implies "that a CCP would still be needed, ie, the network would need to meet the definition of a CCP under EMIR and obtain a CCP authorisation or an existing CCP would need to join the network." For non-centrally cleared OTC transactions, it is stated that the exchange of margin on a bilateral basis may be permissible provided risk mitigation requirements are adhered to.

As for settlement, any functions in scope of the CSD Regulation (CSDR) performed on a DLT network, such as acting as "settlement internaliser"[46], would require compliance with CSDR and international requirements. Key challenges include how to ensure settlement finality, and provide delivery-versus-payment, notably in central bank money. While it is uncertain whether central bank money will ever become available in a DLT environment, the ECB points out that DLT solutions have not sufficiently demonstrated to date how the cash leg of securities transactions can be combined with the securities leg.

> **Regulators stress the importance for potential DLT solutions of complying with the current regulatory framework.**

Conclusion

These challenges and risks are by no means exhaustive, and reflect regulators' views at an early stage of this emerging technology in financial markets. The precise benefits and risks will, however, depend on the purpose, governance arrangements and technical design of DLT.

Generally, there is consensus that it is premature fully to appreciate the potential benefits and challenges of DLT at this stage. Nonetheless, regulators and supervisors point out that the implementation of DLT in securities markets has the potential to increase efficiency, enhance post-trade processes, and reduce costs of financial services, both for providers and users. At the same time, major concerns revolve around interoperability, governance arrangements and security of DLT.

While it is anticipated that DLT will be applied incrementally, regulators stress the importance for potential DLT solutions of complying with the current regulatory framework. ICMA will continue to monitor closely the evolution of DLT in financial markets, as well as regulators' and supervisors' responses. Additionally, policy makers' views, and other initiatives in terms of technical standardisation, deserve further attention.

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46. CSDR defines a "settlement internaliser" as "any institution, including one authorised in accordance with Directive 2013/36/EU or with Directive 2014/65/EU, which executes transfer orders on behalf of clients or on its own account other than through a securities settlement system".

Macroprudential risk

Published on 10 January 2017, *Multiplex Interbank Networks and Systemic Importance - An Application to European Data*, is a BIS working paper. The authors use data on exposures between large European banks, broken down by both maturity and instrument type, to characterise the main features of the multiplex (or multi-layered) structure of the network of large European banks. Banks that are well connected or important in one network, tend to also be well connected in other networks; and the different layers exhibit a high degree of similarity. Measures of systemic importance are proposed that fit the case in which banks are connected through an arbitrary number of layers (be it by instrument, maturity or a combination of both). These measures usefully allow for a decomposition of the global systemic importance index for any bank into the contributions of each of the sub-networks.

On 11 January, the ESRB published a report on *Cyclicality of Capital Requirements*, which aims at clarifying whether risk-sensitive bank capital requirements, as laid down in the EU CRR/CRD, create unintended procyclical effects by reinforcing the endogenous relationships between the financial system and the real economy. The ESRB and the ECB have contributed to the report, coordinated by the EBA. Against the background of the weak evidence on the existence of procyclical effects due to the CRDIV/CRR framework, this report recommends that the EU retains its current risk-sensitive framework for bank regulatory capital. If procyclicality risks were to become more material, the EU financial regulatory framework has various tools at its disposal, which could be used. For those purposes, the impact of the EU bank regulatory framework on the economic cycle should be monitored regularly and the potential impact, effectiveness and efficiency of countercyclical instruments should be further analysed.

As more fully described in the Asset Management section of this ICMA Quarterly Report, on 12 January, the FSB published *Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities*. This document sets out 14 final policy recommendations to address the following perceived structural vulnerabilities from asset management activities, that could potentially present financial stability risks:

- liquidity mismatch between fund investments and redemption terms and conditions for open-ended fund units;
- leverage within investment funds;
- operational risk and challenges at asset managers in stressed conditions; and
- securities lending activities of asset managers and funds.

On 13 January, the EBA published a periodical update of its Risk Dashboard summarising the main risks and vulnerabilities in the EU banking sector by a set of Risk Indicators in the third quarter of 2016. Together with the Risk Dashboard, the EBA published the results of a Risk Assessment Questionnaire, which was conducted among banks and market analysts between October and November 2016. In the third quarter of 2016, EU banks' CET1 ratio reached new highs, increasing by 50 bps to 14.1%, simultaneously explained by the growth in capital (mainly driven by higher retained earnings) as well as a decrease in RWAs. The ratio of NPLs was 5.4%, 10 bps below the second quarter of 2016 and suggesting that supervisory efforts are bearing fruit, albeit slowly. Looking forward, the Risk Assessment Questionnaire shows that over half of the banks plan increased volumes of corporate and SME financing portfolios, as well as residential mortgage and consumer loans.

On 1 February, ESMA published the framework for its 2017 pan-EU stress test exercise on CCPs, which covers 17 EU CCPs - including all products currently cleared by them - and will assess their resilience and safety from a systemic risk viewpoint. ESMA's stress test will complement the stress tests CCPs already run on a daily basis. As CCPs' stress tests focus on their own environment, such as their participants, cleared products and business activity, the ESMA stress test will look at the entire system of EU CCPs by considering possible spill-over effects resulting from CCPs' interconnectedness. CCPs' resilience will be assessed against a combination of multiple participant defaults and simultaneous market price shocks. In March, CCPs will provide the data, ESMA will then finalise the data analysis by the third quarter, with the results of the exercise being published in the fourth quarter.

In a system-wide macroprudential stress-testing framework, all channels of financial contagion, both direct and indirect, between all key macrofinancial sectors ideally need to be included. This is a challenging and possibly unattainable goal. At the same time, it is reported that good progress has already been made by ECB staff over the last three years in extending and further developing their top-down stress-testing framework. Filling out the remaining dimensions of macroprudential stress tests, as well as deepening the integration between the various parts, represents a dense and ambitious work programme going forward. Published on 22 February, *Stress-Test Analytics for Macroprudential Purposes in the Euro Area* (STAMP€), which is the stress-testing framework put together by ECB staff, not only features top-down models for microprudential purposes, but also includes modules that were specifically developed for macroprudential analyses.

Also on 1 February, the FSB published for consultation draft *Guidance on CCP Resolution and Resolution Planning*, requesting comments by 13 March. With CCPs an increasingly important part of the financial system, particularly following post-crisis reforms to mandate central clearing of certain standardised OTC derivatives, it is vital that CCPs do not themselves become a new source of "too-big-to-fail" risk. In August 2016, the FSB already issued a discussion note on essential aspects of CCP resolution planning. This latest consultation is informed by responses to that note and builds on the FSB Key Attributes of Effective Resolution Regimes for Financial Institutions. The Guidance covers a number of aspects which authorities should consider when developing frameworks for resolving failing CCPs. The FSB will undertake further work on financial resources for CCP resolution and, based on further analysis and experience gained, determine by end-2018 whether it should develop further guidance on this issue.

It is vital that CCPs do not themselves become a new source of "too-big-to-fail" risk.

On 9 February, a report was published which provides an assessment of the level of implementation of the ESRB's, April 2013, *Recommendation on Intermediate Objectives and Instruments of Macroprudential Policy* (the "Recommendation") by its addressees, which comprise the EU Member States, their macroprudential authorities and the European Commission. In general, the Recommendation has been successful. It has established intermediate objectives (IOs) of macroprudential policy that facilitate the implementation of the ultimate objective, the safety and soundness of the financial system. IOs are linked to specific macroprudential instruments, which have been largely embedded into the frameworks of Member States.

The development of national macroprudential strategies has been also promoted and the level of implementation by the addressees is already very high, especially with reference to macroprudential instruments. However, Member States still need to take some steps to be fully compliant with all elements of the Recommendation, including the ongoing responsibility to monitor and adjust their macroprudential framework. Additionally, the Commission has already completed a relatively high amount of work regarding the establishment of a set of macroprudential instruments that affect the financial system as a whole.

Published on 13 February, *Addressing the Safety Trilemma: A Safe Sovereign Asset for the Eurozone* is an ESRB working paper. Keeping a national safe sovereign asset (the German Bund) as the cornerstone of the financial system is incompatible with having free capital mobility and maintaining economic and financial stability in a monetary union. Rather, the euro area needs a single safe sovereign asset, but eurobonds are only foreseen after full fiscal integration. To address the safety trilemma, the author proposes that member countries must therefore act as the joint sovereign behind the euro and choose from two options. They could (i) establish a credible multipolar system of safe national sovereign assets; or (ii) together produce a common safe sovereign asset for a truly integrated and stable monetary union, by creating synthetic eurobonds comprising both a safe senior claim and a risky junior claim on a diversified portfolio of national government bonds. The latter appears a more effective solution to the safety trilemma – especially when euro area governments would also issue national GDP-linked bonds – but it requires flanking measures to control for moral hazard.

On 28 February, the EBA published its eleventh Report of the CRDIV-CRR/Basel III monitoring exercise on the European banking system. This exercise, run in parallel with the one conducted by the BCBS at a global level, presents aggregate data on capital ratios – risk-based and non-risk-based (leverage) – and liquidity ratios – the LCR and NSFR – for banks across the EU. It summarises the results using data as of 30 June 2016, but does not reflect any BCBS standards agreed since the beginning of 2016, such as the revisions to the market risk framework, or any other BCBS proposals, which have not yet been finalised, including the revisions to credit and operational risk frameworks.

Also on 28 February, EIOPA published, for the first time after the implementation of the new Solvency II regime, its new Risk Dashboard. Although Solvency II implied a major change in the methodological framework for the calculation of the solvency capital requirements, the initial transition to the new regime was smooth. The results for the third quarter of 2016 show that the low-yield environment and market risks continue to be a major challenge for the European insurance sector. The new EIOPA Risk Dashboard is based on an extended sample of undertakings and on an improved methodological approach.

In addition, on 28 February, the IAIS announced that, as part of the next three-year cycle for reviewing its approach to systemic risk assessment scheduled to conclude in 2019, it is developing an activities-based approach to systemic risk assessment in the insurance sector. To put this into effect, the IAIS has adopted a systemic risk assessment and policy workplan, with the workplan consisting of a logical sequence of planned activities – including finalising any policy measures to address such potential systemically risky activities, to be adopted in 2019.

The EBA organised, on 1 and 2 March, a Joint Colloquium with the IMF, on *New Frontiers on Stress Testing*. The workshop brought together economists, supervisors and policy makers at European and global level with the objective of stimulating the discussion on different aspects of stress testing ranging from the latest methodologies and frameworks for the implementation of liquidity stress tests to macroeconomic variables, capital planning and governance.

Published on 10 March, *Flight to Liquidity and Systemic Bank Runs* is an ESRB working paper, which presents a general equilibrium, monetary model of bank runs to study monetary injections during financial crises. The author finds that when the probability of runs is positive, depositors increase money demand and reduce deposits; at the economy-wide level, the velocity of money drops and deflation arises. In some circumstances, monetary injections have no effects on prices but reduce money velocity and deposits. Counterfactual policy analyses show that, if the Federal Reserve had not intervened in September 2008, the run on MMMFs would have been much smaller.

Also published on 10 March, *SRISK: A Conditional Capital Shortfall Measure of Systemic Risk* is an ESRB working paper. The authors introduce SRISK, which measures the capital shortfall of a firm conditional on a severe market decline, and is a function of its size, leverage and risk. Using the measure to study top US financial institutions in the recent financial crisis, SRISK is found to deliver useful rankings of systemic institutions at various stages of the crisis. Moreover, aggregate SRISK provides early warning signals of distress in indicators of real activity.

Published on 10 March, *Mapping the Interconnectedness Between EU Banks and Shadow Banking Entities* is an ESRB working paper, which provides a unique snapshot of the exposures of EU banks to shadow banking entities within the global financial system. From a macroprudential perspective, the identification of potential feedback and contagion channels arising from the linkages of banks and shadow banking entities is particularly challenging when shadow banking entities are domiciled in different jurisdictions. The authors' analysis shows that many of the EU banks' exposures are towards non-EU entities, particularly US-domiciled shadow banking entities. At the individual level, banks' exposures are diversified although this diversification leads to high overlap across different types of shadow banking entities.

On 15 March, the EBA updated the 2016 list of Other Systemically Important Institutions (O-SIIs) in the EU. O-SIIs - those institutions which, along with Global Systemically Important Institutions (G-SIIs) are deemed systemically important - have been identified by the relevant authorities across the EU according to harmonised criteria provided by the EBA Guidelines. This list also reflects the additional capital buffers that the relevant authorities have set for the identified O-SIIs. The EBA Guidelines on criteria to assess O-SIIs define the size, importance, complexity (or cross-border activities) and interconnectedness of such institutions. The list of O-SIIs is disclosed on an annual basis, along with any CET1 capital buffer requirements, which may need to be set or reset – higher capital requirements will become applicable at least one year after the publication of the O-SIIs list, so as to give institutions enough time to adjust to the new buffer requirements.

On 20 March 2017, ESMA published its latest report on *Trends, Risks and Vulnerabilities* (TRV), which identifies political and policy uncertainty – such as potential repercussions from the upcoming elections in some EU Member States – as the main risk drivers for 2017. Risks in the markets under ESMA's remit remained at high levels, reflecting very high risk in securities markets, and elevated risk for investors, infrastructures and services. Therefore, ESMA's overall risk assessment remains unchanged: market and credit risks remain very high – the highest level – while liquidity and contagion risk remain high.

Released on 23 March, Bulletin No. 43 of the Irving Fisher Committee (IFC), *Statistical Implications of the New Financial Landscape*, reports the proceedings of the Eighth IFC Conference, held in Basel on 8-9 September 2016. Following opening remarks and two keynote addresses, this conference featured sessions on (i) data frameworks for systemic risk; (ii) new financial intermediation patterns?; (iii) new statistics for new monetary policy needs?; (iv) exchange rate, macroeconomic and balance sheet vulnerabilities; (v) dealing with micro data; and (vi) data sharing dissemination, before closing with a panel session on statistical implications of the new financial landscape.

Published on 23 March, *How is the Likelihood of Fire Sales in a Crisis Affected by the Interaction of Various Bank Regulations?* is an IMF staff working paper. In the authors' model, risk shifting motives drive how banks recapitalize following a negative shock, leading banks to concentrate their portfolios. Regulation affects the likelihood of fire sales by giving banks the incentive to sell certain assets and retain others. The authors illustrate that *ex-post* incentives from high risk weights and the interaction of capital and liquidity requirements can make fire sales more likely; and propose that time-varying risk weights may be an effective tool to prevent fire sales.

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ICMA Capital Market Research

Closed for Business: A Post-Mortem of the European Repo Market Break-Down over the 2016 Year-End
Published: 14 February 2017
Author: Andy Hill, ICMA

The Counterparty Gap: A study for the ICMA European Repo and Collateral Council on the Trade Registration Models used by European Central Counterparties for Repo Transactions
Published: 27 September 2016
Author: Prepared for ICMA by John Burke, independent consultant

Remaking the Corporate Bond Market: ICMA's 2nd Study into the State and Evolution of the European Investment Grade Corporate Bond Secondary Market
Published: 6 July 2016
Author: Andy Hill, ICMA

Evolutionary Change: The Future of Electronic Trading in European Cash Bonds
Published: 20 April 2016
Author: Elizabeth Callaghan, ICMA

Perspectives from the Eye of the Storm: The Current State and Future Evolution of the European Repo Market
Published: 18 November 2015
Author: Andy Hill, ICMA

Impact Study for CSDR Mandatory Buy-ins
Published: 24 February 2015
Author: Andy Hill, ICMA

The Current State and Future Evolution of the European Investment Grade Corporate Bond Secondary Market: Perspectives from the Market
Published: 25 November 2014
Author: Andy Hill, ICMA

Continually Working to Develop Efficient and Effective Collateral Markets
ERC Occasional Paper
Published: 4 September 2014
Author: David Hiscock, ICMA

Covered Bond Pool Transparency: the Next Stage for Investors
Published: 21 August 2014
Author: Prepared for ICMA by Richard Kemmish Consulting Ltd

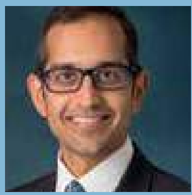
Collateral is the New Cash: The Systemic Risks of Inhibiting Collateral Fluidity
Published: 3 April 2014
Author: Andy Hill, ICMA

Avoiding Counterproductive Regulation in Capital Markets: A Reality Check
Published: 29 October 2013
Author: Timothy Baker, Senior Adviser to ICMA

Collateral Damage: the Impact of the Financial Transaction Tax on the European Repo Market and its Consequences for the Financial Markets and the Real Economy
Published: 8 April 2013
Author: Richard Comotto, ICMA Centre

Economic Importance of the Corporate Bond Markets
Published: 8 April 2013
Author: Timothy Baker, Senior Adviser to ICMA

ICMA in Asia-Pacific



ICMA's most recent event in Asia Pacific, the Primary Market Forum, took place in March in Hong Kong, bringing together more than 80 issuers, syndicate banks, investors and law firms active in primary debt capital markets across the region, to showcase work by ICMA and its members on the regulatory and market practice issues unique to Asian capital markets. Primary market practice is one of the main work streams supported by the team at the ICMA Asia Pacific office in the region. Other key areas of focus are green bonds, particularly in the Chinese market which has seen considerable development in this type of ESG funding in the last couple of years, with China becoming a world leader in the green bond market and Asian repo markets, where we are building on our central role in the support of the European repo market to extend best market practice and standard documentation into the rapidly developing repo markets across the region.

Reflecting the increasing importance of Asia-Pacific as a component of the international capital market and a growing membership in the region, ICMA first established a physical presence in Hong Kong in 2013, to support the use of its internationally recognised market standards, deliver educational services and share its specialised expertise. Since then membership has increased rapidly and now represents the majority of ICMA's members based outside Europe. (Total ICMA membership currently stands at 518 firms in 60 countries. 23% of these are based outside the EU.) Many of them have joined us in the last 12 months and include not only banks active in the market but also infrastructure providers, credit rating agencies and law firms.

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ICMA Annual General Meeting and Conference

LUXEMBOURG
May 3 to 5, 2017

The annual ICMA conference in Luxembourg is expected to attract around 800 capital market participants from all over the world, making it an ideal opportunity to meet new business contacts and catch up with existing ones. We will also be joined this year by 40 sponsors and exhibitors.

ICMA member firms have an allocation of free places and the conference is open to all interested financial market participants and press.

Contact: membership@icmagroup.org

WEDNESDAY MAY 3, 2017

19.30-00.00 **Welcome Reception**
Philharmonie Luxembourg

THURSDAY, MAY 4, 2017

08.00-09.30 **Registration, voting and exhibition open**

09.30-11.30 **Annual General Meeting**
European Convention Center Luxembourg
Open to ICMA members only

11.30-13.00 **Lunch**

ICMA Conference
Programme subject to change.

13.00-13.05 **Open of conference**

13.05-13.20 **Welcome remarks**
Chairman of the Board, ICMA

13.20-13.35 **Opening keynote address:** Pierre Gramegna, Minister of Finance, Luxembourg

13.35-13.50 **Keynote address:** Yves Mersch, Member of the Executive Board, European Central Bank

13.50-15.05 **Panel 1:** Maintaining effective global capital markets at a time of unprecedented change.

An overview of the forces shaping international capital markets, including economic and political developments, Brexit, and the opportunities for cross-border markets in 2017.

Introductory remarks: Steven Maijoor, Chair, European Securities and Markets Authority (ESMA)

Moderator: Martin Egan, Global Co-Head Primary and Credit Markets, BNP Paribas

Panellists: Leonardo Arduini, Head of EMEA Markets & Securities Services, Citigroup Global Markets Limited; Klaus P. Regling, Chief Executive Officer of the European Financial Stability Facility and Managing Director, European Stability Mechanism; Yu Sun, General Manager, Bank of China; Mark Yallop, Chair, FICC Markets Standards Board (FMSB)

15.05-15.35 **Coffee Break**

15.35-15.50 **Keynote address:** Werner Hoyer, President, European Investment Bank

15.50-16.05 **Keynote address**

16.05-17.05 **Panel 2:** Funding economic development: the view from the buy-side.

As policy makers and regulators are looking to increase sources of funding from the non-banking sector, including through the capital markets union (CMU) initiative by the European Commission, are asset managers equipped to play a more important role in capital markets?

Moderator: Robert Parker, Senior Adviser, Credit Suisse

Panellists: Agnes Anouk, Deputy Director General, Association of the Luxembourg Fund Industry (ALFI); Kathleen Hughes, Global Head of Liquidity Solutions Sales and European Head of Institutional Sales, Goldman Sachs Asset Management; Hans Stoter, Chief Investment Officer, NNIP Asset Management; Andreas Utermann, Chief Executive Officer and Global Chief Investment Officer, Allianz Global Investors

17.05-17.20 **Keynote address:** Joaquim Levy, Managing Director and World Bank Group Chief Financial Officer

17.20-17.30 **Closing remarks:** Martin Scheck, Chief Executive, ICMA

17.30 **Close of Conference**

19.45-01.00 **Gala Reception**
Abbaye de Neumünster

Welcome address:
Xavier Bettel,
Prime Minister, Luxembourg

FRIDAY, MAY 5, 2017

ICMA Conference
Agenda subject to change.

08.30 **Exhibition open**

09.30-09.35 **Opening remarks:** Martin Scheck, Chief Executive, ICMA

09.35-10.25 **Panel 3:** Breaking or bypassing barriers – the evolving post-trade environment.

Barriers to an efficient post-trade environment in the EU have long been recognised. Does the transition to T2S coupled with CMU finally offer the chance to break through these barriers? Or, does the innovative FinTech world now perhaps offer the prospect of reinventing post-trade process in a way which simply bypasses them?

Moderator: Godfried De Vidts, Director of European Affairs, Nex Group and Chairman, ICMA European Repo and Collateral Council

Panellists: Michael Schmidt, Chairman, Algomi; Jeff Tessler, Chairman of the Supervisory Board, Clearstream and Member of the Executive Board, Deutsche Börse AG; Gavin Wells, Head of Europe, Digital Asset Holdings (DAH)

10.25-10.40 **Keynote address:** Matthew Westerman, Co-head of Global Banking, HSBC

10.40-11.10 **Coffee break**

11.10-11.25 **Keynote address:** Philipp Hildebrand, Vice Chairman and Member of the Global Executive Committee, Blackrock

11.25-12.15 **Panel 4:** The future of the corporate bond market.

Liquidity, monetary policy, regulation and evolving market structure - implications for the market participants and the real economy.

Moderator: Marc Baignères, Head of Origination of Investment-Grade Finance for Western Europe, JP Morgan

Panellists: Maureen Baker, Global Head, Group Funding and Capital Markets, ArcelorMittal; Sonali Das Theisen, Global Credit Trading, Head of Market Structure & Data Science, Citi; Dr. Nannette Hechler-Fayd'herbe, Head of Investment Strategy and Research, Credit Suisse International Wealth Management; Cornelia Holthausen, Deputy Director General, Directorate General Market Operations, European Central Bank; Marc Tempelman, Managing Director, Co-Head Debt Capital Markets & Financial Corporate Banking (EMEA), Bank of America Merrill Lynch

12.15-13.05 **Panel 5:** Green Bonds: More growth and mainstreaming?

The green bond market passed a critical hurdle, as the inauguration of sovereign benchmark issuance brought a long-awaited boost to liquidity and the vital reference value of a core sovereign issuance programme. The panel will discuss how this landmark development may herald mainstreaming and underpin further growth of the green bond market - after more than doubling in size last year. The panel will also consider the relevance in tackling key environmental challenges, and market governance, including the central role of the Green Bond Principles and striking a balance between rules and incentives.

Moderator: Tanguy Claquin, Head of Sustainable Banking, Crédit Agricole CIB

Panellists: Myriam Durand, Managing Director, EMEA Corporate Finance, Moody's France SAS; Eila Kreivi, Director and Head of Capital Markets, European Investment Bank; Anthony Requin, Chief Executive, Agence France Trésor; Robert Scharfe, Chief Executive Officer, Luxembourg Stock Exchange; Philippe Zaouati, Chief Executive Officer, Mirova

13.05-13.20 **Closing keynote address:** Patrick Wheeler, Consultant and Entrepreneurial Executive Security Officer

13.20-13.30 **Closing remarks:** Martin Scheck, Chief Executive, ICMA

13.30 **Lunch**

14.00 CLOSE OF EVENT

Diary 2017

DATE	ICMA Workshops
1-2 June *Register*	**Professional Repo and Collateral Management, London, 1-2 June** The ICMA ERCC 2017 Professional Repo and Collateral Management Workshop caters to the needs of professional repo market participants and is provided at subsidised rates to ICMA members. It is built around a core of essential topics, supplemented by presentations on developments in market conditions, infrastructure and regulation, which are delivered by experienced practitioners and major service-providers.
6 June *Register*	**European Regulation: An Introduction for Capital Market Practitioners, London, 6 June** Against a background of far-reaching regulatory change ICMA's one-day, fast-track course on European regulation for capital market practitioners gives an overview of the new regulatory landscape for financial institutions in Europe. It puts the major European regulatory initiatives into the context of the global reforms agreed by the G20 and explains the European legislative process, while looking at specific regulations affecting the capital framework of banks, investor protection and disclosure.
13 June *Register*	**Ethics and the Capital Markets, London, 13 June** Looking at the value of ethics and bringing ethical values to bear in the financial markets the workshop starts by reviewing the principal ethical theories from moral philosophers to economists using examples along the way to enhance understanding. It considers ethical issues in the financial markets drawing on case studies from today's international debt markets.
14 June *Register*	**Bond syndication practices for compliance professionals and other non-bankers, London, 14 June** This workshop aims to give compliance professionals an in-depth and thorough understanding of the practices that are involved in launching a deal in the international debt capital market. It explains precisely how the deal is done, starting with first steps in the pre-launch process - looking at the pitch book, the mandate, the roadshow and the prospectus - through syndication, including book building and allocation, up to and including the final public launch of the issue.

Diary 2017

DATE

28-30 June
Register

Repo and securities lending under the GMRA and GMSLA, London, 28-30 June This workshop analyses how repo and securities lending transactions operate within the framework provided by the Global Master Repurchase Agreement (GMRA) and the Global Master Securities Lending Agreement (GMSLA), and highlights the issues that need to be addressed by users. These two separate but increasingly overlapping master agreements are the essential underpinnings of the cross-border repo and securities lending markets.

ICMA Conferences

1 June
Register

The ICMA CBIC & The Covered Bond Report Conference 2017, Frankfurt, 1 June Covered bonds are in the news in 2017, with the European Commission set to deliver its verdict on harmonisation of frameworks, and questions over how the ECB winds down its purchase programme. The sixth annual Covered Bond Investor Conference will examine these topical issues from the buy-side perspective on 1 June.

14 June
Register

Green Bond Principles: 3rd Annual General Meeting & Conference, Paris, 14 June The Green Bond market has proved to be a fast-growing global phenomenon, with issuance roughly doubling in 2016 to in excess of $80 billion. **The Green Bond Principles (GBP)** are voluntary process guidelines intended for broad use by the market that recommend transparency and disclosure, and promote integrity in the development of the Green Bond market. The third AGM of the GBP, at which the 2017 update of the principles will be announced, will take place in Paris on 14 June. In the afternoon following the AGM **(open to GBP members and observers only)**, market participants, investors and commentators are invited to attend a conference where the GBP 2017 update will be discussed, together with other ground-breaking international developments related to the green bond market, including those in social and sustainable finance.

22 June

SAVE THE DATE: Getting noticed: a masterclass in using social media to build your personal brand, London, 22 June The ICMA Women's Network presents this masterclass in which Howard Kingston will share his expertise in social media, explaining the importance of building a truly representative personal brand, raising personal profile and increasing visibility among colleagues, peers and across the industry.

ICMA Executive Education

Courses 2017

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Foundation Qualifications

Financial Markets Foundation Qualification (FMFQ) Online
Next start date: **2 May 2017**
(register by 27 April 2017)

Securities Operations Foundation Qualification (SOFQ) Online
Next start date: **2 May 2017**
(register by 27 April 2017)

Introduction to Primary Markets Qualification (IPMQ)
London: **4-6 December 2017**

Introduction to Fixed Income Qualification (IFIQ)
London: **11-13 October 2017**

Securities Operations Foundation Qualification (SOFQ)
Brussels: **15-17 November 2017**

Financial Markets Foundation Qualification (FMFQ)
London: **8-10 May 2017**
London: **6-8 November 2017**

Advanced Qualifications

ICMA Fixed Income Certificate (FIC) Online
Next start date: **2 May 2017**
(register by 27 April 2017)

ICMA Operations Certificate Programme (OCP)
Brussels: **20-24 November 2017**

ICMA Fixed Income Certificate (FIC)
London: **24-28 April 2017**
Amsterdam: **23-27 October 2017**

ICMA Primary Market Certificate (PMC)
London: **8-12 May 2017**
London: **27 November - 1 December 2017**

Training Programmes

Collateral Management
London: **3-4 April 2017**

Trading & Hedging Short-term Interest Rate Risk
London: **16-17 October 2017**

Trading the Yield Curve with Interest Rate Derivatives
London: **18-19 October 2017**

Corporate Actions - An Introduction
London: **22-23 May 2017**

Credit Default Swaps - Pricing, Application & Features
London: **30-31 May 2017**

Credit Default Swaps - Operations
London: **1 June 2017**

Securitisation - An Introduction
London: **22-23 November 2017**

Securities Lending & Borrowing - Operational Challenges
London: **11-12 December 2017**

The ICMA Guide to Best Practice in the European Repo Market
London: **26 June 2017**
London: **27 November 2017**

Fixed Income Portfolio Management
London: **9-10 November 2017**

For more information, please contact: education@icmagroup.org or visit www.icmagroup.org/education

Glossary

ABCP	Asset-Backed Commercial Paper
ABS	Asset-Backed Securities
ADB	Asian Development Bank
AFME	Association for Financial Markets in Europe
AIFMD	Alternative Investment Fund Managers Directive
AMF	Autorité des marchés financiers
AMIC	ICMA Asset Management and Investors Council
ASEAN	Association of Southeast Asian Nations
AuM	Assets under management
BBA	British Bankers' Association
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BMCG	ECB Bond Market Contact Group
BRRD	Bank Recovery and Resolution Directive
CAC	Collective action clause
CBIC	ICMA Covered Bond Investor Council
CCBM2	Collateral Central Bank Management
CCP	Central counterparty
CDS	Credit default swap
CFTC	US Commodity Futures Trading Commission
CGFS	Committee on the Global Financial System
CICF	Collateral Initiatives Coordination Forum
CIF	ICMA Corporate Issuer Forum
CMU	Capital Markets Union
CNAV	Constant net asset value
CoCo	Contingent convertible
COGESI	Contact Group on Euro Securities Infrastructures
COP21	Paris Climate Conference
COREPER	Committee of Permanent Representatives (in the EU)
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payments and Settlement Systems
CRA	Credit Rating Agency
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSD	Central Securities Depository
CSDR	Central Securities Depositories Regulation
DMO	Debt Management Office
D-SIBs	Domestic systemically important banks
DVP	Delivery-versus-payment
EACH	European Association of CCP Clearing Houses
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Redevelopment
ECB	European Central Bank
ECJ	European Court of Justice
ECOFIN	Economic and Financial Affairs Council (of the EU)
ECON	Economic and Monetary Affairs Committee of the European Parliament
ECP	Euro Commercial Paper
ECPC	ICMA Euro Commercial Paper Committee
EDGAR	US Electronic Data Gathering, Analysis and Retrieval
EEA	European Economic Area
EFAMA	European Fund and Asset Management Association
EFC	Economic and Financial Committee (of the EU)
EFSF	European Financial Stability Facility
EFSI	European Fund for Strategic Investment
EFTA	European Free Trade Area
EGMI	European Group on Market Infrastructures
EIB	European Investment Bank
EIOPA	European Insurance and Occupational Pensions Authority
ELTIFs	European Long-Term Investment Funds
EMDE	Emerging market and developing economies
EMIR	European Market Infrastructure Regulation
EMTN	Euro Medium-Term Note
EMU	Economic and Monetary Union
EP	European Parliament
ERCC	ICMA European Repo and Collateral Council
ESA	European Supervisory Authority
ESCB	European System of Central Banks
ESFS	European System of Financial Supervision
ESG	Environmental, social and governance
ESMA	European Securities and Markets Authority
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
ETF	Exchange-traded fund
ETP	Electronic trading platform
EU27	European Union minus the UK
ETD	Exchange-traded derivatives
EURIBOR	Euro Interbank Offered Rate
	Eurosystem ECB and participating national central banks in the euro area
FAQ	Frequently Asked Question
FASB	Financial Accounting Standards Board
FATCA	US Foreign Account Tax Compliance Act
FATF	Financial Action Task Force
FCA	UK Financial Conduct Authority
FEMR	Fair and Effective Markets Review
FICC	Fixed income, currency and commodity markets
FIIF	ICMA Financial Institution Issuer Forum
FMI	Financial market infrastructure
FMSB	FICC Markets Standards Board
FPC	UK Financial Policy Committee
FRN	Floating-rate note
FSB	Financial Stability Board
FSC	Financial Services Committee (of the EU)
FSOC	Financial Stability Oversight Council (of the US)
FTT	Financial Transaction Tax
G20	Group of Twenty
GATS	General Agreement on Trade in Services
GBP	Green Bond Principles
GDP	Gross Domestic Product
GMRA	Global Master Repurchase Agreement
G-SIBs	Global systemically important banks
G-SIFIs	Global systemically important financial institutions
G-SIIs	Global systemically important insurers
HFT	High frequency trading
HMRC	HM Revenue and Customs
HMT	HM Treasury
HQLA	High Quality Liquid Assets
HY	High yield
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
ICMA	International Capital Market Association
ICSA	International Council of Securities Associations
ICSDs	International Central Securities Depositaries
IFRS	International Financial Reporting Standards
IG	Investment grade
IIF	Institute of International Finance
IMMFA	International Money Market Funds Association
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee
IOSCO	International Organization of Securities Commissions
IRS	Interest rate swap
ISDA	International Swaps and Derivatives Association
ISLA	International Securities Lending Association
ITS	Implementing Technical Standards
KfW	Kreditanstalt für Wiederaufbau
KID	Key information document
KPI	Key performance indicator
LCR	Liquidity Coverage Ratio (or Requirement)
L&DC	ICMA Legal & Documentation Committee
LEI	Legal Entity Identifier
LIBOR	London Interbank Offered Rate
LTRO	Longer-Term Refinancing Operation
MAD	Market Abuse Directive
MAR	Market Abuse Regulation
MEP	Member of the European Parliament
MiFID	Markets in Financial Instruments Directive
MiFID II	Revision of MiFID (including MiFIR)
MiFIR	Markets in Financial Instruments Regulation
MMCG	ECB Money Market Contact Group
MMF	Money market fund
MOU	Memorandum of Understanding
MREL	Minimum requirement for own funds and eligible liabilities
MTF	Multilateral Trading Facility
NAFMII	National Association of Financial Market Institutional Investors
NAV	Net asset value
NCA	National competent authority
NCB	National central bank
NSFR	Net Stable Funding Ratio (or Requirement)
OAM	Officially Appointed Mechanism
OJ	Official Journal of the European Union
OMTs	Outright Monetary Transactions
ORB	London Stock Exchange Order book for Retail Bonds
OTC	Over-the-counter
OTF	Organised Trading Facility
PCS	Prime Collateralised Securities
PD	Prospectus Directive
PMPC	ICMA Primary Market Practices Committee
PRA	UK Prudential Regulation Authority
PRIIPs	Packaged Retail and Insurance-based Investment Products
PSEs	Public Sector Entities
PSI	Private Sector Involvement
PSIF	Public Sector Issuer Forum
QE	Quantitative easing
QIS	Quantitative impact study
QMV	Qualified majority voting
RFQ	Request for quote
RM	Regulated Market
RMB	Chinese renminbi
ROC	Regulatory Oversight Committee of the Global Legal Entity Identifier System
RPC	ICMA Regulatory Policy Committee
RSF	Required Stable Funding
RSP	Retail structured products
RTS	Regulatory Technical Standards
RWA	Risk-weighted assets
SEC	US Securities and Exchange Commission
SFT	Securities financing transaction
SGP	Stability and Growth Pact
SI	Systematic Internaliser
SLL	Securities Law Legislation
SMEs	Small and medium-sized enterprises
SMPC	ICMA Secondary Market Practices Committee
SMSG	Securities and Markets Stakeholder Group (of ESMA)
SPV	Special purpose vehicle
SRF	Single Resolution Fund
SRM	Single Resolution Mechanism
SRO	Self-regulatory organisation
SSAs	Sovereigns, supranationals and agencies
SSM	Single Supervisory Mechanism
SSR	EU Short Selling Regulation
STORs	Suspicious transactions and order reports
STS	Simple, transparent and standardised
T+2	Trade date plus two business days
T2S	TARGET2-Securities
TD	EU Transparency Directive
TFEU	Treaty on the Functioning of the European Union
TLAC	Total Loss-Absorbing Capacity
TMA	Trade matching and affirmation
TRs	Trade repositories
UKLA	UK Listing Authority
VNAV	Variable net asset value
WTO	World Trade Organisation

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